

S
331
L1R
1917-1918
1

STATE DOCUMENTS

STATE OF MONTANA
PLEASE RETURN

Third Biennial Report

OF THE

DEPARTMENT OF LABOR
AND INDUSTRY

1917-1918

MONTANA STATE LIBRARY
930 East Lyndale Avenue
Helena, Montana 59601

W. J. SWINDLEHURST, Commissioner

INDEPENDENT PUBLISHING CO
HELENA, MONTANA



ASU AUG 27 '80

MAY 18 1988

MAY 20 1982

Montana State Library



3 0864 1004 3921 8

STATE OF MONTANA

Third Biennial Report

OF THE

DEPARTMENT OF LABOR

AND INDUSTRY

1917-1918

W. J. SWINDLEHURST, Commissioner

INDEPENDENT PUBLISHING CO
HELENA, MONTANA





LETTER OF TRANSMITTAL

State of Montana

Department of Labor and Industry

Helena, Mont., November 30, 1918.

His Excellency, Honorable S. V. Stewart,
Governor of Montana.

Sir:

I have the honor of transmitting to you my report for the Department of Labor and Industry for the years 1917 and 1918.

In the compilation thereof, particular attention has been given to strikes and industrial disturbances. The State has suffered heavily because of unsettled labor conditions. Disturbances in Butte and in the lumber districts of the State during 1917 amounted almost to insurrection against the State of Montana, and were generally attributed to German and I. W. W. propaganda. A reign of terror existed in some cases by reason of threats, intimidation and violence, and the civil authorities were not able, or did not, maintain order. In Butte and in several lumber camps United States troops were employed to protect life and property. This Department has made searching investigations to determine the causes of disturbances. Some degree of success has attended these efforts and remedial legislation is suggested.

Owing to the rapid development of the state's lumber industry, it has been given prominence in this report. I desire to bring to your attention the timber resources of Montana and the important part the state's forests played in supplying materials essential to the nation's war program.

Attention is called to the directory of Montana labor organizations which is published in this report. The name and number of each union, with the name and address of the secretary, is given of all locals affiliated with the American Federation of Labor, as well as independent railway organizations in the State.

Closely related to the development of the State's resources, mining, farming, lumbering and stock raising, is the cost of living. Success along industrial lines can be achieved only through satisfied workers. Statistics included in this report show that the wage earner has been receiving higher wages than in former years, but it is also shown that many of the necessities have increased out of all proportions. The high cost of living, unaccompanied by corresponding wages, has been one of the chief factors in causing labor disturbances. There have been numerous other secondary causes, which, I am confident, can be overcome through the enactment of adequate laws.

The work of this Department, during the past two years, has been greatly augmented by the labor disturbances. My duties were added to when I accepted the appointment as federal fuel administrator

for Montana, which office I filled gratuitously for eight months, relinquishing same at your request in order to give all my time to the increasing duties of Commissioner of Labor and Industry.

Considerable time and attention have also been given to the administration of the Workmen's Compensation law, my duties as a member of the State Industrial Accident Board having contributed to the burdens and responsibilities of this department.

Permit me to express appreciation of the many courtesies and the invaluable assistance that your Excellency has extended me in the conduct of this department.

Respectfully,

W. J. SWINDLEHURST,

Commissioner.

LEGISLATION RECOMMENDED

RECOMMENDATIONS TO THE LEGISLATURE

SHOULD COMPEL REPORTS.

It would facilitate the work of the Department if the legislature passed an act compelling county and municipal officials to respond promptly to requests for statistical information. Delay and expense would also be avoided by such a law. For the most part, officials are willing to assist in the work. Occasionally indifference is shown, and now and then a disposition to refuse information is apparent. This difficulty could be remedied by an act requiring this service, without additional compensation.

PAYMENT OF WAGES.

It is a matter of concern and regret to the wage earners of the State, that the Fifteenth Legislative Assembly failed to recognize the urgent need for a law providing for the prompt payment of wages. In the first biennial report of this Department, published in 1914, attention was called to the many complaints by workingmen who had trouble collecting wages due them, and who had been defrauded by irresponsible employers.

Complaints of this nature have been as numerous during the years 1917 and 1918 as prior to that period. In most cases reported to this office, the men had quit work of their own accord because of unfavorable working conditions, but in some instances they were discharged without notice, and their wages refused them. As a rule, the employer refused payment because he did not wish to deviate from an established custom of paying only on regular pay days. In other cases, payment was arbitrarily refused and the men were turned adrift without money for necessities and without means to seek employment in another locality.

The victims of abuses, such as described, are usually of the migratory class, and the amount involved is frequently less than an attorney's fee for trying the case. Furthermore, the workingman is usually uninformed regarding the state laws, and he does not understand why he should be compelled to contribute a part of his wages to collect money which he has honestly earned. Collecting wages by civil process is too slow and cumbersome to be available to the transient laborer, who needs his money at once.

Conditions, such as described, produce vagrants and criminals. Remedial legislation is important and necessary. Legislatures should long ago have recognized the inadequacy of the present laws to protect workingmen in the collection of wages. Under existing conditions

little encouragement is offered to the laborer to take his claims into court and the Department of Labor is powerless to assist him. True, there are mechanics' and laborers' lien laws, but these do not extend to all classes of employment and do not provide means for securing immediate payment.

What is wanted is a simple method of collecting wages. Nothing better demonstrates the need for such legislation than the many complaints received by this Department during the past four years. As a means of relief from abuses, such as described, this Department renews its former recommendation for the passage of a law that will insure prompt payment of wages due laborers who may be discharged, or voluntarily quit their employment.

DEDUCTION FROM WAGES.

Objection has been made by wage earners, to the regulations providing for deductions from their earnings for road and poor taxes and hospital fees. Complaints have been numerous the past season, regarding the system of collection, which admits of a number of abuses.

The deduction for road and poor taxes is made under a provision of the Montana statutes, enacted during territorial days. It authorizes employers to withhold once each year from the wages of every male employe, between twenty-one and fifty years, two dollars for road purposes, and an additional tax of two dollars from employes, between twenty-one and sixty years, for the care and support of the poor. The law not only authorizes the deduction, but holds the employer responsible for its payment.

Realizing that a citizen's first duty is to the State, this Department does not contend that the system, in general, is wrong, but it believes that an injustice is frequently done, and that hardships result from its every-day practice and application. The casual laborer, without steady employment, is the chief sufferer, and has cause for complaint. Often he finds irregular employment in some railroad or construction camp, after months of enforced idleness. After working a few days, he is discharged or quits. In such cases, it is lawful and customary to withhold the four dollars for road and poor taxes, and usually one month's fee is taken out for hospital, surgical and medical accommodations. In many instances, the entire pay check is consumed in this manner, and the workman is turned adrift in a destitute condition.

Prior to the passage of the workmen's compensation law, collection of the hospital fee was the first and most important consideration. The universal custom was to apply for hospital accommodation the first dollars earned. Much of this difficulty has been obviated through the efforts of the industrial accident board, which has urged an assessment in proportion to the time worked. Many employers now deduct ten cents a day for the first ten days, or a total of one dollar a month. This seems to be an equitable method of collecting this fee.

Perhaps some method, less apt to cause injustice and hardship, can also be found to collect the road and poor taxes. A law limiting the franchise to those who have paid these assessments has been suggested.

The problem is a fundamental one. Collection of these taxes causes discontent and dissatisfaction among laboring men, particularly the transient class. It is earnestly hoped that the next general assembly will make some effort to correct the present inequitable situation, by proper legislative enactment.

EMPLOYMENT AGENCY ABUSES.

Investigation made by this Department, as a result of complaints by persons who have been victimized by unscrupulous employment agencies, furnishes conclusive evidence that stringent legislation is necessary to protect workingmen against misrepresentation and abuses.

Employment agency swindles are of daily occurrence in Montana. Various schemes have been devised and perfected to separate the unsuspecting applicant for work from his money. One common and profitable method is a secret agreement between an employer or his foreman and the employment agent. A standing order for a certain number of men is left with the agency, and the men are promised steady employment at a stipulated wage. After reaching their destination, usually some distance from the city, they are discharged after a short time, to give room to other applicants who have been sent to take their places. These men are sent singly or in groups, upon the payment of a fee of one or two dollars each. While one crew is working, another crew is coming and still another is going. The employment agent divides his fees with the employer or foreman, it is presumed. In some instances, this amounts to a considerable sum of money. In other cases, the men are paid off at a lower wage than was promised in the original contract. Other forms of misrepresentation are practiced, such as giving misleading and incomplete information regarding the nature of the work. In most cases, the amount involved does not warrant the employe in bringing a civil action.

There is no state law regulating private employment agencies, and apparently there is no provision under which a successful criminal prosecution can be had. In rare instances, convictions have been secured, under the statute, for obtaining money under false pretenses. Where the employment agent and the employer are in collusion, which is usually the case, the necessary evidence is difficult to secure.

The number of private employment agencies, according to the report of the United States Commission on Industrial Relations, although varying greatly from year to year, is estimated at from 3,000 to 5,000 in the entire country. Investigations made by the commission show that instead of relieving unemployment, these agencies serve to congest the labor market and to increase idleness and irregularity of employment. The report goes on to say that the absurdity and waste which characterize the existing system of marketing labor can be appreciated best by imagining the condition which would be produced

if every manufacturer who needed lathes, drill presses, planers and milling machines advertised for them in the papers, and many machines were sent to him, out of which he could pick the few he wanted; and that this is exactly what happens when machine hands, human beings, are wanted, and when the calls go out for harvest hands, or when any other class of labor is advertised for. No one knows how many will answer the advertisement. Many more than the number needed respond to the calls. The waste of time, energy, car fare and railroad fare, to get to the places, is enormous. Often men quit positions in the hope of getting the alluringly advertised work. Many employers do not even advertise. They simply hang the "Help Wanted" sign at the door and depend on people to walk the streets and watch for these signs.

Investigators and men who were sent out by the commission to answer "want ads" found many of these inserted by employment agents who had no job to offer, but who wanted to collect registration fees. The investigators further found that groundless rumors often sent people scurrying over the cities and country on wild goose chases, and that rumors regarding available jobs were frequently the result of fake want ads, inserted in newspapers by employment agencies for the purpose of boosting towns or industries, or to attract a large supply of labor to some particular locality. Again says the commissioner, "It is an almost universal custom among private employment agents to fill vacancies by putting in them people who are working at other places."

In some states private employment agencies are under the supervision of the labor department, from which they must secure licenses. These licenses are made revokable upon conviction for the first offense.

Rigid regulation of private employment agencies should be established in this State. Punishment should be provided for cases of misrepresentation and for failure to live up to the contract made with applicants for work. The Department, however, believes that the best remedy is to abolish all employment offices conducted for profit.

CHANGES IN COMPENSATION LAW.

The Montana workmen's compensation act is admittedly one of the best compensation laws in existence. It differs in some of its provisions from the acts of the other thirty-seven states having compensation laws. The difference is mainly in the plans under which employers are organized, Montana's act effecting a decided saving in the cost of administration. The purely compensation provisions are similar to those of other acts, and are believed to be founded on correct principles. The unlooked for advance in the cost of living, should it continue, would be sufficient reason to increase the weekly allowances to injured employes and their beneficiaries, or dependents.

Some of the provisions need to be made more flexible, others changed, and perhaps some new ones added. "Partial disability"

should be made to mean that an injured employe who has returned to work at a reduced wage on account of his injury, should receive one half the difference between his former and his present wages, providing it shall not exceed the maximum allowed for total disability.

Provision should be made for payment of compensation for a percentage of permanent disability after total disability has ceased. To illustrate, an employe has an arm or leg injured and is incapacitated for a definite period. His recovery has left him with a permanent stiff arm or leg. The percentage of loss of the use of this limb should be compensated under the schedule for a total loss. There is no such provision in the present law. The provision for partial disability in its present form is nugatory.

As one of the objects of the compensation law is to do away with litigation, there should be no equivocal or uncertain provisions. Beneficiaries and dependents should be clearly defined, as should accidental injuries and incidental or proximate causes.

Many employes contribute to a hospital fund. These should be remunerated by eliminating the two weeks' waiting period, providing their disability extends beyond that time. Where there is no arrangement for medical and hospital service, \$50 is allowed in lieu of compensation. This appears to be equitable.

Matters relating to employers under the act are thoroughly covered in the third annual report of the industrial accident board.

The labor commissioner's part, such as it has been, as a member of the compensation board, has ever been a pleasant and agreeable duty. There has been found a way to bridge all difficulties that have arisen. It is well understood that the burden of administering the act is largely on the chairman and his corps of assistants. The state auditor and the commissioner of labor have other duties which require most of their time. Their work on the compensation board is more of an advisory nature than otherwise.

The act is beneficent and should be broadly construed so as to reach the end of its purposes. There is reason to feel assured that this has been the spirit of its interpretation.

**STRIKES, WALKOUTS AND
LABOR DISTURBANCES**

STRIKES AND LABOR DISTURBANCES

Strikes and labor disturbances of an unusually severe nature seriously crippled Montana industries during the past two years. Widespread agitation and a general unrest characterized conditions in the lumber industry in 1917. This was generally attributed to German propaganda and activities of the Industrial Workers of the World.

Butte mining companies were persistently harrassed by I. W. W. and other un-American elements during the summers of 1917 and 1918. A serious falling off in zinc and copper production, essential to the government's war program, was noticeable as a result of these activities.

Not all strikes, however, which have occurred were due to the foregoing causes. A number of controversies have resulted from a demand for increased wages and for improved industrial conditions. Doubtless, a large proportion of laborers, tradesmen and mechanics, who have made demands upon their employers during the past two years for increased wages and improved regulations, sincerely believed they were warranted in demanding an increased share of the prosperity of the times. With a new era of high prices, a scarcity of all classes of labor, and the cost of the necessities of life increasing daily, the workman feels that the profits of his employer have greatly increased and that he is entitled to a proportionate advance in wages so that his earnings may have the same purchasing power as formerly.

The unusually large number of strikes which have occurred during the past two years indicate that the workman has considered times propitious to ask for increased wages and for improved conditions, and confirms the opinion often advanced, that strikes are much more frequent when there is an unusual demand for labor and wages are comparatively good than when wages are low, times excessively hard and employment difficult to secure.

Important strikes and labor disturbances which have occurred in the State during the past two years follow:

MINE DISASTER PRECIPITATES STRIKE.

One of the most protracted and far reaching strikes in the history of the State was precipitated by the North Butte disaster, in which 164 men lost their lives. There were a number of contributory causes, such as the rustling card system, the mounting cost of living, and the activities of the Industrial Workers of the World, supposedly due the German propaganda. The real cause of the strike was the Speculator mine disaster on June 8.

Butte, for some time, had been a volcano on the point of eruption. The heavy toll of life in the Speculator catastrophe proved to be the flaming torch. The labor disturbance began while rescue work was still in progress at the North Butte property. It did not end until late in the fall. The strike was officially declared off on December 18, 1917, by the Metal Mine Workers. It had gradually lost its force, so that official action on the part of the Metal Mine Workers played no part in restoring normal conditions.

Results of Strike.

Many organizations became involved in the labor disturbance, which was initiated by Butte Local No. 65, International Brotherhood of Electrical Workers. The strike vote was taken on June 8, and the electricians went out on June 18. Their demands were for increased wages. Among the results of the strike, which spread to practically all industries in Butte and Anaconda, and forced the shutting down of smelters in other parts of the State, were the loss of a big metal output badly needed for war purposes; the lynching of Frank H. Little, an I. W. W. leader; modification of the rustling card plan; a sliding scale of wages for mine employes, based on the price of copper, and a general readjustment of differences between employes and employers.

Organized labor won a decisive victory over the Industrial Workers of the World and their followers, who sought to disrupt the mining industries of our state in order to give aid to the enemy. Americans, whether employers or employes, were made to see their duty in this national crisis, making it more difficult to precipitate another serious strike while our country is at war.

Duration of Disturbance.

While the electricians were the first organized body to quit work, their strike being directed against the Montana Power company, they were not the first to leave work. On June 11, a large number of circulars, calling on miners to stand together in a demand for higher wages, and urging them to organize, were distributed. The Elm Orlu, a mine owned by ex-Senator W. A. Clark, was shut down on the 11th. The miners did not appear for work. The trouble at the Elm Orlu was a direct result of what employers characterized as the I. W. W. or German activities.

From the time of the disaster at the Speculator until December, conditions in Butte were abnormal. There were times when some of the mines operated with short crews, but the strike practically forced the closing down of all mining activities in Butte.

Metal Mine Workers.

Organization of the Metal Mine Workers was effected on June 13 with approximately 1000 members. The demands for higher wages and for better working conditions were refused by the mine operators. The call for the strike was immediately issued. Among the demands of the new organization, which refused affiliation with the American

Federation of Labor, and became at loggerheads with the officials of the State Federation of Labor, were the following:

Recognition of the new union; six dollars per day for underground workers; examination of mines monthly; committee of miners to pass on the discharge of employes; abolition of the rustling card system and of the black list; bulkheads with man-holes so that men could escape in time of accidents.

On the same day the Metal Mine Workers effected organization, the operators issued a statement that they would resist the agitators, saying they held the same element responsible as had caused the trouble in 1914, and placing the blame upon the influx of Industrial Workers; it was also claimed that no grievance had been cited.

M. M. Donoghue, President of the State Federation of Labor, took the first step on June 15 to organize a new union in opposition to the Metal Mine Workers. About this time the Metal Mine Workers denied connection with the Industrial Workers of the World.

The trouble became so acute that the authorities took steps to provide military and police protection.

Trouble Spreads.

On June 17, the claim was made by the Metal Mine Workers that more than 3000 miners were on strike. Employers charged that rescue work was delayed at the Speculator mine because men refused to work. This was emphatically denied by the strikers.

The electricians, who had gone out at the Montana Power company, made demand upon the mining companies to have pressure brought on the Montana Power company to meet their terms and also to have the demands of the striking miners granted. They made the threat that all electricians employed at the mines would be called out if this were not done. The demand was not granted, and on June 20, all electricians left the mines.

The Silver Bow Trades and Labor Council, which had up to this time taken no public action in connection with the strike, endorsed the electricians as far as the Montana Power company was concerned. Immediately upon the heels of this endorsement, the Boilermakers and the Machinists also endorsed the electricians, but refused to endorse the Metal Mine Workers. A few days later, the Silver Bow Trades and Labor Council refused to give its endorsement to the Metal Mine Workers. Several local unions endorsed the Electricians, and sympathetic strikes were called. On June 29, it was estimated that more than 15,000 men were out.

Mediator Arrives.

W. H. Rodgers, Federal Mediator, arrived in Butte on June 23, and he immediately began conferences with employers and employes. Soon after his arrival, several of the national heads of labor organizations arrived on the scene. Negotiations for ending the strike began on June 29. The Montana Power company made a counter proposal to the Electricians. This was rejected on July 3. Negotiations were

continued and differences speedily adjusted, with the result that the Electricians returned to work on July 16.

The extent to which the strike affected the mining industry can be partially judged by noting that copper production of the Anaconda Copper company for June was 20,400,000 pounds—a decrease of 8,000,000 pounds from June 12, the beginning of the strike.

The Metal Mine Workers denied all connection with German propaganda and asked the government to take control of the mines.

Refuse Affiliation.

F. J. McNulty, President of the International Electricians, arrived soon after the Federal Mediator. He was the direct representative of President Samuel Gompers, of the American Federation of Labor. The Metal Mine Workers were not favorable to affiliation with the American Federation of Labor, their plan being to win the strike before giving consideration to this. Affiliation was brought to a vote on July 11 and was refused by a large majority. This refusal began to weaken the Metal Mine Workers, as many of those who favored affiliation returned to work. Within a few days, the Butte Metal Trades Council voted to return to work, leaving the Metal Mine Workers the only ones on strike. Mines were enabled to operate at about one-third capacity after an almost complete shut-down.

At this juncture, things looked favorable for a complete settlement. The signs failed. The Metal Mine Workers became more active than ever. They passed a resolution condemning the Mine, Mill and Smelter Workers as unfair to the workingman and asked the recall of Federal Mediator Rodgers. The Electricians reached an agreement with the Montana Power company and the operators. When they returned to work, the unions that had gone out in sympathy voted to go back to work. A new contract, basing the wages on the price of copper, was proposed by the Anaconda Copper Mining company and was accepted by most of the labor organizations affected. The State Metal Trades, by a majority vote, decided to take the terms, but on July 30, when it seemed that the trouble was over, the Electricians refused to abide by the decision. Some of the men were pulled off the job; others refused to quit.

Feeling Grows Intense.

Instead of the trouble having run its course, it had merely subsided to break out anew. Agitators grew more bitter in their denunciations, and feeling ran high. About 3 o'clock on the morning of August 1, six masked men took Frank H. Little, an I. W. W. leader, from his room and hanged him on the trestle of the Milwaukee railroad. The situation became more aggravated and the strike was far from settled. On August 11, the tenseness reached the point where it was deemed advisable to have soldiers patrol the principal streets of Butte. The authorities were determined to maintain order and to prevent acts of lawlessness, so apt to be indulged in during periods of excitement.

Smelter Shuts Down.

Investigations, conferences and agitations continued, notwithstanding that a majority of the State Metal Trades Council had voted to accept the new terms proposed by the A. C. M. company. Justice J. Harry Covington came from Washington to get first hand information. Congresswoman Jeannette Rankin hastened to Montana to mingle with the strikers. Butte had passed through strenuous days from the time of the Speculator disaster, but the days following the lynching of Little were filled with even more uncertainty.

Mines and other industries which had been affected were again operating, but it was evident that conditions, as they were, could not continue. On August 12, the smeltermen at the Washoe smelter failed to vote a strike. A two-thirds vote was needed. The radical element of the Butte Metal Trades Council sought a reconsideration of the vote by the State Metal Trades Council. Anaconda street cars were tied up on August 23, and on August 24 the men at the Washoe smelter failed to show up for work. Immediately following this, all mines were shut down, and because of a lack of ore, the smelter at Great Falls was closed.

A. F. of L. versus I. W. W.

While the State's principal industries were paralyzed, the fight grew more bitter between the organizations affiliated with the American Federation of Labor and the I. W. W., who appeared to be in control of the Metal Mine Workers. The former triumphed, with the result that on September 11, the men voted to accept the terms of the Anaconda Copper Mining company. The Metal Mine Workers continued on strike, but the crews at the mines gradually filled up and production became more normal. Realizing the fruitlessness of their efforts, the Metal Mine Workers officially called off the strike on December 18.

NORTH BUTTE DISASTER.

One hundred and sixty-four men lost their lives on June 8, 1917, in the Speculator mine, owned by the North Butte Mining company. The property loss ran into the millions, and the mining company paid out a large sum, under the provisions of the Workmen's Compensation Act, to the dependents of those who lost their lives in Montana's worst mine disaster.

An exhaustive investigation was made to determine the cause of the fire, but evidence given by survivors is conflicting. It was, however, pretty well established that the inflammable insulation of a heavy cable was ignited by a carbide lamp carried by Ernest H. Sallau, a mine foreman, who was one of the victims of the disaster. The cable was encased in lead. In moving it, the casing was broken, exposing the tarry insulation.

Flames Spread.

Within a few minutes after the fire broke out, the mine became an inferno. Four hundred and fifteen men were employed in the drifts and stopes from the 800-foot level down to the 2600-foot level.

Smoke and gas soon filled the workings. Miners, who knew that there were several avenues of escape, became confused and lost their lives. Many made a rush for the Granite Mountain shaft, through which the Speculator was being worked temporarily. They found this avenue of escape shut off, for the shaft was enveloped in flames.

Investigation disclosed that the fire started about forty feet below the 2400-foot level. It was shortly before midnight on June 8. Ventilation provided for the different workings made the flames spread rapidly, and many miners were trapped within a few minutes.

Lower Levels Worst.

The gas was the worst on the 2400-foot level and on the 2600-foot level. It was on these levels that the heaviest toll of life was taken. Men were working in all drifts and stopes below the 800-foot level. The extent of the workings of the Speculator mine can be best realized when it is known that below the 800-foot level there are 360 miles of track. It took time for the warning to be given to the employes scattered throughout the workings, and with the ventilating system aiding the spread of the flames, the chances for escape were reduced to the minimum.

Rescue work continued for days. Some of the bodies were not brought to the surface until they had reached a stage beyond recognition.

Duggan Was a Hero.

Manus Duggan proved to be a hero. After saving the lives of 26 of his fellow workmen. He fell a victim to the disaster. Duggan, realizing that all means of escape were shut off, led the men to a cross-cut, where he directed the building of a bulkhead to shut out the smoke and gas. The men were stripped of their clothes to stop the openings in this structure. The men remained behind this temporary bulkhead for thirty-six hours. Several times Duggan found it necessary to use force to keep some one who found the foul air unbearable from tearing down the flimsy wall that stood between them and certain death. The time came when it meant death to remain longer behind the bulkhead, so Duggan directed the work of tearing it down. The men started towards the shaft, but Duggan separated from the party and his body was found several days later.

METAL MINE WORKERS.

An attempt to close the mines and stop production of zinc and copper—metals essential to the prosecution of the war—was made September 12, 1918, by the Butte Metal Mine Workers' union, composed principally of socialist agitators and Industrial Workers of the World. Several thousand miners quit work, following the circulation and posting of a handbill urging all workmen to cease work as a protest against the conviction and imprisonment of Thomas Mooney, Eugene V. Debbs, William D. Haywood and other imprisoned I. W. W. and socialist leaders.

No formal demands were made on the mining companies. The circular stated that the miners demanded abolition of the rustling

card system and a minimum wage of six dollars for an eight-hour day from collar to collar, which meant, in effect, that the miners be allowed to go in and out of the mines, to and from work, on the companies' time.

Trouble Not Unexpected.

The trouble was not entirely unexpected. Rumors had been current for several months that trouble was brewing. During the latter part of July, John D. Ryan, President of the Anaconda Copper Mining company, and Director General of aircraft production in the United States, paid a visit to Butte. Renewal of the demands made in 1917 was presented by the union in a message sent to President Ryan. This message declared the intention to call a strike within three days if the demands were refused. These demands called for an eight-hour day, elimination of the rustling card, recognition of the Metal Mine Workers' union, a wage of six dollars a day and permission to have a grievance committee inspect the mines every month.

Immediate answer was given by Con F. Kelley, Vice President of the company, who declared emphatically in a public meeting given in honor of Mr. Ryan, that the company would never deal with the I. W. W. For some reason, the strike was not called on schedule.

Authorities Get Busy.

Immediately following the strike on September 12, steps were taken by federal, city and county officials, to safeguard the mining properties and protect miners desiring to work. Federal and city officials, aided by troops of the Fourteenth United States Infantry, raided an old church building used as I. W. W. headquarters, Finlander hall and the office of the Butte Bulletin, a daily newspaper, publication of which had been forbidden by the State Council of Defense.

Twenty-four suspects were taken in custody in the raid on the Bulletin office, including W. F. Dunn, editor of the Bulletin and leader of the strike the previous year. For several days, troops and local officers made a systematic roundup of I. W. W. suspects and military slackers. All those who could not show registration cards were taken to police headquarters and searched.

Efforts were made by mine officials and Butte newspapers to minimize the seriousness of the strike. It was announced that less than a thousand miners, mostly Finns, had quit work. From day to day, announcement was made through the Butte press that more men were reporting for work and that the strike situation was much improved.

Doubtless the number of miners in sympathy with the I. W. W., who joined the strike at the outset, was comparatively small. Nevertheless, the situation grew worse as time progressed. Several instances were reported where miners had been beaten by I. W. W. and their sympathizers. As a result, many men quit work through fear and intimidation. At one time I. W. W. leaders claimed 8,000 men were idle.

About this time, there was an unfortunate occurrence, which increased the gravity of the situation. On September 18, H. D. Gillis, a deputy sheriff, who, the strikers claimed, was a gunman employed by the Anaconda Copper Mining company, shot and mortally wounded

John Carroll, a miner. Gillis claimed Carroll was indulging in seditious talk with three other men, and that he attempted to place Carroll under arrest. The shooting appears to have been justified. Gillis appears to have been severely beaten, and he fired the fatal shot while prostrate on the ground.

A committee of women, wives of miners, called at the office of United States District Attorney B. K. Wheeler, September 18, and demanded protection for their husbands and brothers who desired to work. They said that their men had been threatened, and that in instances, miners had been beaten by strikers and their sympathizers. In reply to a question, one of the women said that the committee would bring 1,000 women to the district attorney's office, if necessary, to emphasize their demands for protection.

United States District Attorney B. K. Wheeler, in a statement issued September 20, announced that a policy of threats and intimidation would not be tolerated, and all parties guilty of this offense would be prosecuted.

Aided by the military and civil authorities, federal officials continued to wage an unrelenting crusade for the purpose of apprehending slackers. At all mines, notices were posted requiring miners to show their registration cards before they would be lowered into the mines.

Organizations Refuse Endorsement.

Not a single bona fide labor organization affiliated with the American Federation of Labor, nor a kindred independent craft union in Butte endorsed the strike. The Butte Electrical Workers' Union No. 65 turned down a motion to endorse the strike by a vote of 4 to 1. The Federal Labor Union refused to ballot on the endorsement, and contented itself with ignoring the situation. The Woman's Protective Union refused to entertain a committee from the Metal Mine Workers' Union, and declined to give them the privilege of the floor. Montana State Federation of Labor officials were known to be strongly opposed to a strike at this time, and although no statement was issued, it was apparent that they did not take kindly to any movement which would hamper the government during war time.

I. W. W. Formulate Demands.

About this time, a committee representing the Metal Mine Workers' Union No. 800, of the Industrial Workers of the World, formulated a statement setting forth demands in nine items. Accompanying these demands was an explanatory statement, in reality an attack on the mining companies. These demands were addressed to the "Department of Justice, United States Attorney, Butte, Montana," and simply signed by Thomas Hodges, Chairman, and Joe Kennedy, Secretary. Items 1, 2 and 3, in effect, called for an eight-hour day from collar to collar, a minimum wage of six dollars per day, and absolute abolishment of the rustling card system. Items 4, 5 and 6 demanded the immediate release of all prisoners, whether municipal, county, state or federal, where warrants had not been issued and complaint filed in a court of proper jurisdiction, and that such prisoners be afforded immediate opportunity to secure bail. Exception was made in cases where the

offense was committed in the presence of a peace officer. Other stipulations included the privilege of prisoners to communicate with counsel, that assaults on prisoners be not permitted except in cases of self-defense, that raids or searches without search warrants be prohibited, and that no property be destroyed or injured by officers engaged in raids, searches or seizures; that the United States government guarantee these demands, was asked.

The release of all war prisoners convicted on false and perjured evidence was demanded in Item No. 7. In Item No. 8, the government was directed to take over the mines, mills, smelters and reduction works, and it was asked that the federal government guarantee safe and sanitary conditions of employment, irrespective of property interests. The government of the United States was asked in Item No. 9 to take immediate and appropriate action to enable workmen in the mining regions to secure the necessities of life in open competition or on a cooperative basis, to the end that workers might buy at the cheapest possible price.

Federal Mediator Arrives.

On September 24, Federal Mediator Tom Barker arrived in Butte and held a number of conferences with numerous labor leaders. He also met the I. W. W. and the Metal Mine Workers' Union and urged the men to return to their labors and place their grievances in the hands of the national war labor board for adjustment. Mr. Barker explained the mission of the national war labor board and stated that provisions had been made to impose a penalty upon employers and employes who refused to submit to federal demands. Mr. Barker agreed to make a thorough investigation and report to Washington authorities. He asked that a committee be appointed and instructed to return an answer to him later.

The Metal Mine Workers' Union, in reply to this proposition, stated that they would abide by the decision of the I. W. W., by whom the strike was called. The following day, the I. W. W. refused to grant the request of the Federal Mediator, and announced that they would not return to work until their demands were granted. Through the offices of Mr. Barker, the differences were finally harmonized September 28, and the I. W. W. agreed to return to work pending a settlement of their grievances with the mine operators. Announcement of the settlement, by the Butte Daily Bulletin, regarded as the official spokesman of the Butte radical element, was made in the evening issue of that publication on September 28. The strike lasted exactly two weeks.

SERIOUS LABOR TROUBLES AT BILLINGS.

On June 15, 1917, the Federal Labor Union at Billings demanded the enforcement of a new wage scale for teamsters and common laborers. The demands were denied by the local building contractors and their position was endorsed by the Billings Employers' Association. The men were locked out on two contract jobs, and as a result other members of the Union were called out on a sympathetic strike. By June 21, the ice men, coal and lumber men, city employes, gas men, creamery workers, truck drivers and all helpers, under the jurisdiction

of the Federal Labor union, were on a strike, numbering approximately 250 men. As the strike spread, it began to affect the skilled trades, and by the time it was ten days old, over 1000 men were idle. In denying the demands of the unions, the contractors took the position that the members of the teamsters' and common laborers' unions had agreed to a fixed wage scale in January for the year 1917.

The contractors held that the scale was ratified by the various local unions in the Building Trades Council and that figures for the building work under way at the time of the trouble were based on the scale agreed upon. They further contended that if the demands of the teamsters and laborers were granted, serious financial loss would result to the contractors.

On June 28, the strike ended. At a conference between the Employers' Association and the unions, lasting until midnight on June 27, terms satisfactory to both sides were agreed upon. By this agreement, all former employes were reinstated and given a raise in wages of 50 cents per day, \$4.00 being the minimum wage for all employes, except monthly employes.

FEDERAL LABOR UNION'S DEMANDS GRANTED.

On June 23, 1917, the members of the Anaconda Federal Labor Union declared a strike against the Clifton, Applegate and Toole company, the Bingham and Betts company, and the Mountain States Telephone and Telegraph company, for an increase in wages from \$3.50 to \$4.00 per eight-hour shift for all common laborers, diggers, excavators, et cetera.

On the 18th of July, the Executive Committee of the Central Labor Council met with the Contractors and representatives of the Federal Labor Union and settled the differences by entering into a contract with the above Contractors, the Telephone Company and said union for a \$4.00 rate from July 18, 1917, till July 18, 1918.

FLOUR AND CEREAL WORKERS.

A strike for higher wages and a new agreement by the Flour and Cereal Workers at the Royal Milling company's plant at Great Falls took place during October, 1916.

At the opening of the last biennial period, this strike was still unsettled, although numerous conferences had been held in an effort to adjust the differences between the company and the unions. The strike was far reaching, inasmuch as a boycott was declared against the company's product, and this boycott was pretty generally taken up and endorsed by local unions. As the strike progressed, all business houses in Great Falls handling the products of the mill were declared unfair, and efforts were made to divert business from these firms. On January 25, 1917, the strike was temporarily settled and the milling company declared fair. When the strike was called, the

places of the cereal workers were filled by non-union men. In the agreement reached, the company agreed to take back fifteen of the old employes at once, and the remainder of the old hands were to be given back their places as vacancies occurred.

On February 2, diplomatic relations between the Royal Milling company and the union were again severed, the labor situation having reverted to conditions existing prior to the settlement of January 25. This trouble was the result of a violation of the agreement by the company. The Farmers' Cooperators Congress in session at Great Falls passed a resolution on February 22, endorsing the Great Falls unions in their fight against the Royal Milling company. During all this time, vigorous efforts were being made by the Employers' Association to bring about a settlement. All efforts to terminate the controversy having been futile, the Employers' Association, in order to bring the strike to an issue, on February 27 declared a general lock-out of employes in Great Falls.

Grocery clerks and delivery men were among the first to be denied the privilege of working in their accustomed places. Contractors in all branches simultaneously laid off all employes. Other sympathetic shut-downs followed, about 500 people being thrown out of employment the first day. In less than a week the lock-out of all employes in the city was practically complete. Dining rooms and barber shops in hotels were closed, and the stores remained open as usual, the proprietors attending to as much trade as possible, but making no deliveries. With the lock-out of 100 iron workers, blacksmiths and their helpers, fully 1000 men were idle in less than a week.

After about a month of continuous conferences, an arbitration committee composed of seventeen representatives of the Employers' Association, and seventeen from the labor unions of the city, signed an arbitration agreement which officially ended the Great Falls industrial war. The settlement of the strike was in the nature of a compromise, both sides making important concessions in the adjustment. The adoption of a permanent system of arbitration was the most important work of the conference. The agreement was a reasonably fair one to all concerned, the rights of both parties in any future controversy being fully protected.

Loss on account of the strike and lock-out was unusually severe, and the announcement of a settlement was an occasion for rejoicing throughout the State.

EMPLOYES BUILDING SUGAR FACTORY AT MISSOULA STRIKE.

The Great Western Sugar company, in November, 1916, commenced the erection of a large factory at Missoula. Trouble arose between the company and the plumbers and steam fitters employed in construction work. This led to a long continued fight between the unions of Missoula and the sugar company and the contractors building the company's plant. The controversy was never adjusted, the strike con-

tinuing with the sugar company on the unfair list, until the completion of the factory late in the fall of 1917.

Prior to the trouble, officials of the sugar company appeared before the Missoula Trades and Labor Council, requesting the privilege of erecting their plant under open shop conditions. The Council was assured that the company would furnish employment to all labor which the unions of Missoula could supply, that they would pay union wages and observe union hours and regulations. These privileges were granted with the condition that the agreement would have no bearing upon any of the organized crafts on any other job.

At this time, a Mr. Graham, a local contractor, was erecting one of the minor buildings and was employing union help and observing union regulations. Teamsters employed about the work being convinced of the substantial benefit to be derived from organization, joined the union but were discharged the next day and non-union teamsters given their places. Other union men were likewise discharged and their places filled by help imported mostly from outside the State.

About this time, a committee from the Business Men's Association took an interest in the matter and attempted to effect a reconciliation. Numerous mass meetings were held by the people of Missoula to discuss the strike situation. Several special meetings of the Missoula Trades and Labor Council and Building Trades Council were held to consider the differences between the company and the unions. The company and the contractors, believing themselves masters of the situation, would concede nothing, and finally, with the consent of the Business Men's Association, the Dyre Construction company, which was erecting the main building of the plant, was declared unfair.

The tactics of the Dyre Construction company were followed by sub-contractors, who cut wages and discharged all union employes. Finally, the Missoula Trades and Labor Council and Building Trades Council declared the whole works unfair, but allowed Mr. Graham to finish his contract under closed shop conditions. This action somewhat delayed the completion of the plant until late in the year.

The policy of the sugar company and the contractors antagonized the union men of Missoula, for they were convinced that the representatives of the company sought to destroy their organization and to build the factory with non-union labor. The entire controversy was extremely unfortunate.

LOCK-OUT OF BUILDING TRADES AT HELENA.

Early in the spring of 1917, journeymen carpenters of Helena formulated demands upon the contractors for an increase in wages from \$5.00 to \$6.00 per day. The new scale was to go into effect March 1. In addition, the Union demanded that all bosses working at the trade, the same as journeymen carpenters, should join the union and become full fledged members of the organization. Three local contractors, not members of the union, refused to concede this point and immediately stopped work on all their contracts.

The situation reached an acute stage on April 15, when owners of all local lumber yards and hardware stores who were members of the Helena branch of the Montana Employers' Association declared a lock-out, affecting approximately 400 employees engaged in the various building trades. At a previous meeting of the members of the Employers' Association, it was agreed to furnish no material for buildings, either in progress or contemplated, until a satisfactory adjustment of the controversy was reached and assurance given that there would be no further labor trouble precipitated by the unions during the season of 1917.

Pending negotiations for a settlement of the controversy, the lock-out was lifted on April 18. Immediately following the truce, efforts were made to effect an amicable settlement. After numerous conferences had been held, a general arbitration agreement was signed. This provided that all future controversies should be taken before a board of arbitration for final settlement.

Both the Employers' Association and the unions were favorable to the principles of arbitration, and as a consequence the rights of both parties were fairly and fully protected in the adjustments of the dispute.

BILLINGS LAUNDRY WORKERS OUT ONE HOUR.

A strike, remarkable for the shortness of its duration, was that of the Laundry Workers, some 110 in number, composed of men and women employed in the three laundries of Billings. The strike was ordered March 1, 1917, and lasted but one hour. The demands of the strikers included a new wage scale that gave them a straight time working week, with no lost time unless they quit work of their own volition as individuals, and a general eight-hour day. The employees were granted all their demands, including a 20 per cent increase in wages.

BARNEY FASHION SHOP BOYCOTTED AT MISSOULA.

Unions of Missoula, during the summer of 1917, placed a boycott on the Barney Fashion Shop, a clothing concern which broke an agreement to close every night at six o'clock. Prior to the woman's eight-hour law, which became effective April 1, 1917, the stores of Missoula had been closing at 6 o'clock on all nights during the week except Saturdays. Following the passage of this law, the Business Men's Association held a mass meeting and appointed a committee to solicit merchants to close at 6 o'clock on Saturday nights.

The manager of the Fashion Shop signed the agreement, was appointed on the committee and was extremely enthusiastic regarding the move. The agreement to close Saturday nights met with the hearty approval of all merchants. Mr. Barney kept the agreement for two weeks and then opened up after 6 o'clock, apparently for the purpose of taking advantage of the larger stores, which could not

afford to keep their places open in the evening because this would necessitate hiring an extra shift.

The Clerk's Local endeavored to get Mr. Barney to live up to his agreement. The matter was referred to the Trades and Labor Council, and the executive board of this organization failed to get results. The Business Men's Association also took the matter up, but was refused an audience with the proprietor of the concern. Consequently the Barney Fashion Shop was declared unfair by organized labor of Missoula, and a banner was carried daily before the place to notify the public.

I. W. W. CAUSE DISTURBANCES IN THE LUMBER INDUSTRY.

The lumber industry suffered severely from the depredations of the Industrial Workers of the World during 1917. Losses occasioned by the aggressions of this pernicious organization were considerable. In presenting facts with reference to the labor situation in Western Montana during the summer of 1917, it is not necessary to give details about the I. W. W. movement. The public is familiar with the activities of this organization, whose declared purpose was to hamper and cripple all industries engaged in work essential to the government's war program.

Admittedly unpatriotic in its aims and purposes, the radical leaders of the movement found a fertile field in the saw mills and logging camps. Following a declaration of war by our country, the activities of the I. W. W. commenced in earnest. As early as the middle of April, the Eureka Lumber company, in Lincoln county, was compelled to suspend operations on its drive and close its mill at Eureka, throwing 400 men out of employment. At Fortine, near the head of the drive, 250 "wobblies" congregated and established a "jungle camp," warning the river drivers that they would not be allowed to work. Similar conditions existed at Libby and at other points in Lincoln county. Civil authorities seemed incapable of dealing with the situation.

An urgent request for protection was sent by the citizens and business men of Lincoln county, to the Governor, the Attorney General and the United States District Attorney. United States soldiers were finally sent to Eureka to preserve order, and patrols were placed about the company's mill and camps. Some of these soldiers were later sent to Libby at the request of citizens and county authorities, who had been criticizing the authorities for sending troops to Eureka.

As the season progressed, the situation also grew serious in Flathead, Sanders, Mineral and Missoula counties. Practically all mills and camps in the State were compelled to close or were working short-handed. Few companies were able, during the summer, to produce fifty per cent of their normal output. All companies were compelled to employ guards to protect their mills and plants, and patrols

were placed at frequent intervals in the woods to prevent incendiary fires. Because of these conditions and the shortage of help, most companies operated at an increased cost. During the months of July and August, numerous fires of unknown origin broke out in the forests, destroying great quantities of valuable standing timber. At one time in August, it was estimated that 4,500 men were employed by the United States Forestry Service and the lumber companies, in fighting fires.

Missoula was particularly a hotbed for the I. W. W. It was claimed that the passive attitude of the Missoula administration, which apparently sympathized with the strike, was the cause of the tense situation there. At any rate, the Polleys Lumber company at Missoula and the mills at Bonner lost many men through fear and intimidation.

On August 24, Federal authorities raided the headquarters of the I. W. W. at Spokane, Washington, and arrested some 27 leaders of the movement, including a man named Rowan, who was apparently directing the activities of the organization in western Montana, northern Idaho and eastern Washington. This action on the part of the Federal authorities had a salutary effect on the situation in this State. Although the propaganda continued for several months, conditions improved from this date. Mills and camps were gradually able to secure full crews and resume normal operations.

It was generally believed and contended that the I. W. W. disturbance in western Montana was financed with German money. When the men first went out, they made no demands on their employers, but it was later claimed that the object of the strike was for an eight-hour day and better sanitary conditions. Investigation showed that the strikers, whether in town or congregated in jungle camps, were usually well supplied with money. It is still the general impression that the leaders of the movement, at least, were not actuated by the highest motives and that they were receiving financial assistance from sources other than bona fide labor organizations.

LITTLE ROCKY MINERS STRIKE.

Metalliferous miners, numbering about 250, employed by the Ruby Gulch Mining company at Zortman, the Beavercreek Mining company at Beavercreek, and the Augusta Mining company at Landusky, all in the Little Rockies in Phillips county, walked out on a strike May 8, 1917. The strike was ordered by the Western Federation of Miners, the men at Beavercreek and Whitcomb being members of the Zortman Camp No. 190, while those at Landusky belonged to a separate camp of the Federation. The strike was the result of the company's refusal to grant an increase in wages from \$3.50 to \$4.00 per day. No violence was attempted, the strike being conducted by the union in a quiet and orderly manner. The suspension of work lasted only a few days, when a settlement was reached, the company conceding all the demands of the strikers.

HAVRE LABORERS STRIKE FOR \$4 PER DAY.

May 8, 1917, laborers employed by the city of Havre asked for an increase in wages from \$3.50 to \$4.00 per day. Their demands were refused and the men quit work. A few days later, at a meeting of the city council, the merits of the case were investigated and the advance in wages granted.

LIVINGSTON LAUNDRY WORKERS.

Employees of the National Park and American Power laundries at Livingston struck for increased wages May 18, 1917. The strike was sanctioned by the Laundry Workers' International Union and the local Trades and Labor Council.

The girls employed in these plants demanded a scale of \$12 per week, which was denied. They had been receiving from \$4.20 to \$7.20 per week.

Both laundries were declared unfair to organized labor, and pickets established. Circulars were distributed about the city, announcing the boycott and stating that the girls were striking for a living wage.

On June 1, an agreement was reached whereby the employes gained important concessions, and the strike was declared off. The laundries opened for business June 4, all old hands returning to work without prejudice.

STRIKERS LOSE AT DILLON.

Mechanics and laborers, employed in the construction of a new hotel building at Dillon, struck May 24, 1917, for a general increase in wages. Concrete laborers demanded \$3.20 to \$4.00 for eight hours, while mechanics demanded \$6.00 per day for eight hours.

These demands were refused by the contracting company, and as a consequence all workmen but two quit the job. Work was delayed for a few days, but a new crew was engaged, and building proceeded without further interruption.

TELEPHONE OPERATORS AT MISSOULA.

Eighteen telephone operators employed by the Mountain States Telephone and Telegraph company in their plant at Missoula went on a strike July 3, 1917, demanding an increase in wages and recognition of the union. Soon after, the girls were joined by the company's electricians, some 20 in number, who walked out in sympathy with the girls. The city was immediately without telephone communication. Numerous conferences between the striking operators and linemen, officials of the telephone company and the Employers' Association for several days failed to end the strike.

After a shut-down of several days, the Mayor of Missoula appealed to the State Public Utilities Commission to take some action, but that department of the state government took the position that it had no jurisdiction in the premises.

On July 7, H. E. McAfee, Division General Manager of the Mountain States Telephone and Telegraph company, offered to arbitrate the strike. This offer was flatly refused by the girls, who insisted on their original demands without arbitration. Finally, J. F. McNulty, President of the International Brotherhood of Electrical Workers, who was detained in Butte, owing to the strike situation there, sent C. A. Drollette, as his personal representative, to assist in settling the strike. Following a conference on July 9 between Mr. Drollette and Mr. McAfee, the company agreed to the recognition of the union, the closed shop and a wage scale ranging from \$40 to \$65 per month.

In the final agreement, the demands of the girls, that the above concessions be granted the operators in the towns of Stevensville, Victor, Hamilton, Plains and Thompson Falls, were given unfavorable consideration, and the company was granted an agreement to give 30 days' notice of wish to amend agreement. All former employes were reinstated without prejudice.

STRIKES AND WALK-OUTS IN COAL MINES.

The Republic Coal company's mine at Klein, which is a Chicago, Milwaukee and Saint Paul Railway property, the output being used in railroad operation, was closed by a strike of the miners on July 23, 1917. Between 400 and 500 men were affected. This was the most serious strike which has occurred in the coal mines of the State for years.

The men were trying to force the company to give preference to the oldest employes when new men were put to work digging or loading coal. They also demanded a readjustment of the minimum turn. "Turn" is a term used in coal mining, to designate the number of mine cars supplied each day to two miners working together in an entry. At each mine the turn is regulated locally by joint agreement. The men at Klein claimed that the superintendent, by not furnishing sufficient cars, had frequently violated the minimum turn agreement, which establishes a minimum of five cars for pick-mined coal, and six cars for machine-mined coal. Instead of giving the men an opportunity to earn the wages which they claimed they were justly entitled to under their agreement, the company, they contended, put on more men when the average turn of the mine ran over the minimum of five or six cars.

The company claimed there was a general unrest among the miners; that the men quit work before the minimum number of cars were loaded, which considerably decreased the amount of coal which the mine produced. Because of the liberal contract which the men had secured, the company claimed that the miners were making six, eight, ten and even twelve dollars a day, in from four to six hours' work, and that it was impossible to keep them in the mine after they

had earned that amount, although they were expected to work a full eight-hour day.

The question of seniority in the employment of men was another bone of contention and had long been a source of dissatisfaction to the men. About a year previous, this question was submitted to arbitration, the men losing by the decision. The men were undoubtedly in the wrong, as the strike violated the joint agreement and was not authorized by officials of the United Mine Workers of America. Having refused to obey the instructions of their officers, who ordered them to return to work, the charter of the local union was revoked August 2, and the men deprived of the support of the organization.

September 12, Frank Hefferly, of Illinois, and Felix Pogliano, of Colorado, international organizers of the United Mine Workers of America, were sent to Klein to compose the differences between the men and the company. At a conference which was immediately called, the situation was thoroughly discussed, and, at the conclusion, Mr. Hefferly declared that he carried in his pocket authority from the international headquarters to organize a local at Klein and re-open the mine with men then on a strike, if possible, but with any others eligible for membership in the event former employees refused to return. Provisions of the contract with the operators' association were violated and union laws were ignored in closing the mine, according to Mr. Hefferly. He declared that the United Mine Workers of America would see to it that the terms of the agreement with the Republic Coal company were carried out to the letter.

After some deliberation, a majority of the men expressed willingness to become members of the new local union and to return to work. Organization was at once undertaken, and upon its completion the men in the mine were admitted to membership. All the old hands returned to work, with the exception of between 20 and 30, who were responsible for the trouble. The company refused to take these back.

On January 25, at the Carpenter Creek mine of the Roundup Coal company, when the men appeared for work there were no lights in the wash-house, and the men went home, closing the mine for the day. The next day when the men came to work, the lights were restored, but it was claimed that the wash-house was in an unsanitary condition, and the men went home, thereby closing the mine for that day. The company showed they had tried to secure bulbs for the wash-house, but were unable to do so, and that before starting time on the morning of January 25, they had lights burning in the wash-house. The men were fined \$1.00 each for closing the mine in violation of the contract. On the 26th, it was proven that the wash-house was in an unsanitary condition, and the men were not fined.

February 17, 1917, over a dispute as to the method of working pillars, the Stockett mine of the Cottonwood Coal company was closed for two days. This trouble arose over drawing pillars. The company required the men to take a skip up the pillars in order to lay a track, then bring the balance of the pillar back. The men wished the company to clean the rock from alongside the pillars, laying the track therein, and to allow the men to draw the pillars back, thereby avoid-

ing the necessity of skipping. The men, having violated the contract in closing the mine, were fined \$1.00 each for each day the mine was idle.

July 13, 1917, the Carpenter Creek mine of the Roundup Coal company was closed for seven days over a dispute as to the eligibility of the check-weighman whom the miners had elected to represent them in weighing coal; and further, regarding the placing of a man to load coal in violation of a local agreement between the men and the company. The company claimed the check-weighman had not been an employe of the company for three months, as the contract provided, and refused to let him go on the tippie to weigh the coal, or rather watch the weighing of it. When it was shown that he had been in the employ of the company since the previous fall or winter, and that the company was wrong in closing the mine, the company was fined \$1.00 per day for each day the mine was idle.

HAVRE BARBERS DEMAND MORE PAY.

In August, 1917, journeymen barbers at Havre made a demand of their employers for a \$21 a week guarantee and 60 per cent of receipts over \$31. Prior to this time the working barbers had been receiving a \$21 a week guarantee and 60 per cent of receipts over \$35. The boss barbers refused to grant the advance, and the barbers walked out. The strike lasted two weeks, when a compromise was agreed upon and a contract signed for two years. Under the new contract the barbers received \$21 a week guarantee and 60 per cent of receipts over \$33, with the Saturday closing hour set at 9:30 p. m.

MANGANESE MINERS.

The strike of the metalliferous miners at Philipsburg was in the nature of a sequence to the strike of the Butte metal mine workers. Following the walk-out at Butte, which subsequently closed the smelters at Anaconda and Great Falls, organizers of the Metal Mine Workers' Union were sent to various camps to organize the miners. Most of these organizers apparently were I. W. W. sympathizers or agitators of an extreme type. Among the miners at Philipsburg there was a sprinkling of men affiliated with the metal mine workers at Butte. These assisted in the formation of a union. The operators strenuously opposed organization. Sixteen companies, some of them leasers, were at this time operating within a radius of a mile and a half of Philipsburg. With the exception of the Bi-metallic silver mine and some copper prospects, these mines were all producing manganese ore. The war created an exceptional demand for this mineral, which is used extensively to increase the density and hardness of steel.

On September 17, 1917, a committee from the Metal Mine Workers' Union made a demand on the operators for a flat wage scale of \$5.50 for a day of eight hours. It also demanded a semi-monthly pay day, and that the mine operators recognize the Metal Mine Workers' Union.

These demands were put in the form of a communication. The operators were given 24 hours to grant the request, on penalty of having a strike declared at the end of that time. In response, the operators posted a notice agreeing to pay the following wage scale:

Miners and other underground employes other than shaft miners, \$4.50; shaft miners, \$5.00; blacksmiths, \$5.00; timber framers, \$5.00; surface laborers, \$4.00. In support of this wage scale, the following facts were submitted by the operators:

"Since August 1st, the manganese market has declined 5 cents per unit. The Interstate Commerce Commission has granted the railroads an increase of 15 per cent in freight rates, this increase to become effective September 1st. An increase in the wage scale would make impossible the marketing of large quantities of low-grade ore now being shipped. Most of the prospecting and development work would be impossible under an increased wage scale, thereby not only materially decreasing the number of men employed, but also seriously interfering with the search for new ore bodies. We find the above wage scale to be consistent with those in effect in other mining districts. We find the cost of living to be no greater than in districts working under equal wage scales. We consider the working conditions in the Philipsburg district to be far better than in the majority of mining camps. In view of the foregoing facts, the Philipsburg Mine Operators have unanimously adopted the above wage scale."

The above scale was put into effect at once, and a large proportion of the miners struck next day. Others were intimidated by a committee of strikers who marched to the different properties and threatened violence if the men did not quit work. Practically the entire camp was closed for several days. The strike continued for some time without special incident, the men gradually returning to work at the mine operators' new scale. This strike, like the one in Butte, was practically lost, although an increase in wages was granted.

ELECTRICIANS AT HELENA REFUSE TO ARBITRATE.

September 7, 1917, the electricians employed by the Helena Light and Railway company, about 10 in number, went out on a strike. The men demanded \$6.00 a day, an increase of \$1.00 a day.

The electricians flatly refused to be bound by their agreement to arbitrate their grievances. They refused to treat with committees from the Building Trades Council after the arbitration board found the offer made by the Helena Light and Railway company to be fair and recommended its acceptance. The electrical workers, on December 18, made a public statement explaining their side of the controversy. From figures taken from the records of the company filed with the State Public Service Commission, the men alleged the company had had a very prosperous year, clearing more than \$100,000. These figures were submitted as proof that the company was able to pay the increase demanded by electrical employees.

Some three weeks after the strike was declared, a final settlement was reached, the company having granted the men several important concessions, including a raise of 75 cents per day in wages.

SUGAR FACTORY EMPLOYEES STRIKE

Agitation for a shorter work day among the employes of the sugar factory of the Great Western company's plant at Billings ripened into expression on October 15, 1917, and some 200 out of the 700 employes of the plant laid down their tools after their demand for a reduction from 12 to 8 hours per day was refused. The establishment of an eight-hour day seems to have been the principal cause of the strike, although a general advance of seven and one-half cents an hour was also demanded. When the night forces appeared for work, strikers and sympathizers congregated at the gate of the plant and attempted to intimidate the workers. A general riot followed, many noses being bloodied. The strikers were chased up town.

The company appealed to the sheriff and the mayor for protection. This was granted, and armed guards were placed at the plant with orders to shoot intruders.

The strikers were unsuccessful in their attempts to gain the eight-hour day. After a somewhat bitter struggle, they lost out and some 60 or 70 of the men were refused reemployment.

BILLINGS PACKING PLANT DECLARED UNFAIR.

Trouble between the unions of Billings and the Yellowstone Packing plant started in the spring of 1917, over the objection of the company to unionize the plant, and because of the refusal to observe the basic eight-hour day as recommended by the Federal government. In October the building trades were called off the job for two weeks, but returned to work because of the fact that they were working directly for a contractor instead of the packing company. This plant is still unfair, the unions of Billings having declared a boycott on the product of the company.

METAL TRADES FAIL TO WIN.

Seven crafts affiliated with the Great Falls Metal Trades Council went on a strike February 21, 1918. Their demands for increased wages, varying from \$1.50 to \$2.25 per day, were refused, and a walk-out followed. All machinists, boilermakers, engineers, firemen, sheet metal workers, moulders and electricians, with the exception of the men employed in the smelter of the Anaconda Copper Mining company, were involved.

The electricians, 125 in number, did not quit work until March 2. They had no grievance, wages and working hours being satisfactory, and their action in going out was due solely to the fact that the electrical workers were affiliated with the Great Falls Metal Trades Council. They were ordered out in sympathy with other crafts. Their action had the sanction of F. J. McNulty, International President of the electricians.

For several weeks, conferences between representatives of the unions and the Employers' Association were held almost daily. Judge G. Y. Harry, Federal Mediator, endeavored in every way possible to effect a settlement. In the course of a few months it was evident that the strike was losing ground. Public opinion had never favored the strike and it was generally looked upon with disfavor by other labor organizations in Great Falls, who felt that the trouble had been precipitated by Butte radicals. The Employers' Association was extremely firm in its attitude to grant no concessions. The strike finally wore itself out.

MILWAUKEE BLACKSMITHS.

Thirty blacksmiths employed in the Milwaukee railroad shops at Miles City struck February 26, 1918. Trouble arose over the employment of a man who did not have a union card. The men were out for several days, but returned to work after the objectionable employe had been discharged and minor grievances adjusted.

ICE HARVESTERS.

Sixty men employed by the People's Ice company went on a strike at Great Falls, February 28, 1918. It was claimed there was a disagreement between the men and the management of the company as to what the scale of pay and the overtime item should be. They were unable to reach an agreement, so the men quit. The ice for the city had all been stored, and what was being harvested was for the Great Northern Railway company. The places of the strikers were filled and the work proceeded.

BUILDERS AT WHITEHALL.

Employees working for the Larron Construction company, engaged in building a sugar factory at Whitehall for the Great Western Sugar company, went on a strike in February, 1918. The strike resulted from the efforts of the construction company to establish the open shop principal. The strike continued for several months, the Butte unions having levied an assessment to assist the strikers.

After being out several weeks, the company conceded the points in dispute and the strikers returned to work.

CITY LABORERS DEMAND \$4.50 PER DAY.

Following a walk-out of other unions in Great Falls, all common laborers employed by the city struck March 5, 1918, because the demands of the Federal Labor union for a wage increase to \$4.50 per day had been refused by city authorities. At the regular meeting of the city council, held the following night, the demands of the Federal Labor

union were granted and the wage increase ordered to date from March 1. At this meeting the teamsters' union also presented the international closed shop agreement, binding the city to observe the eight-hour day, to hire none but union men and to pay the scale submitted, with time and a half for all Sunday and holiday work. This demand was referred to the Ways and Means committee.

Members of the Employers' Association at the next weekly meeting of the city council protested bitterly against granting the above concessions to the unions, with the result that the council recinded its former action, although agreeing to pay the common laborers at the rate of \$4.50 per day from March 1 to March 12. The matter was then referred to a joint conference between the unions and the Employers' Association, the council agreeing to pay such wages as recommended at this conference.

ANACONDA BARBERS WIN.

The journeyman barbers of Anaconda went on strike March 8, 1918, demanding an increase in salary which the proprietors refused to meet. Under the old schedule the barbers were allowed 60 per cent of what they were able to take in during the week, with a fixed guarantee. The men claimed that their pay was inadequate and demanded 66½ per cent of the business, which the proprietors finally granted, and the men returned to work.

RAILROAD LABORERS.

On March 13, 1918, forty laborers employed by Grant Smith, a railroad contractor doing riprap work for the Great Northern Railway company in Lincoln county struck for an increase in wages from \$3.25 to \$3.50 per day. The men also demanded an eight-hour day. Nearly all these laborers were shipped to Libby from Great Falls. The contractors refused to grant any concessions, the places of the men being filled, after some delay, with new men, and the work proceeded as before.

GENERAL LOCK-OUT OF UNIONS AT BILLINGS.

One of the most serious labor situations in the history of Billings was precipitated on April 2, 1918, when the laundry workers walked out after their demands for an increased wage scale were refused by the employers. Immediately following the strike, action was taken by the Billings branch of the Montana Employers' Association, presumably for the purpose of disciplining the Billings unions. All crafts affiliated with the Building Trades Council, as well as the clerks, cooks and waiters, laundry workers, common laborers and teamsters under the jurisdiction of the Trades and Labor Assembly, were locked out of employment, pending a return to work under open shop conditions.

At the time of the lock-out, the above mentioned unions were negotiating with their employers for a new wage scale, although it is claimed that the cooks and waiters, prior to the lock-out, had presented no new agreement. Other unions were also drawn into the trouble, which continued for about two months. The cooks and waiters were locked out in seven houses, affecting between 70 and 80 members. Sixteen stores were declared unfair, some 60 or 70 members being out of employment. All of the laundry workers in the two laundries, some 105 in number, were out, and members of the Federal Labor Union were locked out on all team and dray work, including ice, coal and lumber yards, affecting perhaps 150 men. Probably 700 men affiliated with the Building Trades Council were affected from time to time during the trouble. The laundry workers were asking for an average increase of not more than \$2.00 per week. Some classes of work asked for no increase. Probably 40 per cent of the laundry workers were affected by the increase asked. After being on a strike for two months, the laundry workers' organization broke up, some 12 of the original strikers returning to work under open shop conditions.

The strike was practically lost, members of the Federal Labor Union returning to work also under open shop conditions, although in some cases they received an increase of 50 cents per day. Minor concessions were also granted in some instances by individual employes, including the cooks' and waiters' and clerks' unions, although it may be said that these unions are perhaps not more than fifty per cent as efficient as they were before the lock-out last April.

All unions affiliated with the Building Trades Council asked a substantial increase in wages, in addition to going out in sympathy with the laundry workers. In most cases, the wages were adjusted satisfactorily. Carpenters, who remained out the longest in sympathy with the laundry workers, received an increase in wages from six to seven dollars per day, with Saturday afternoons off without pay. Hod carriers were granted an increase ranging from 50 cents to one dollar per day, according to the class of work. Painters, sheet metal workers and plasterers received approximately a one dollar a day increase. Plumbers' wages were also increased from seven to eight dollars per day.

While a great deal of sympathy was expressed for the strikers, their cause was not supported as whole-heartedly as the unions expected. A boycott was placed against all unfair business houses, and while considerable business was not doubt diverted from these places, it was not sufficient to induce the proprietors to accede to the demands of the striking workmen. Taken as a whole, the strike was anything but a success.

MINE ENGINE MEN QUIT.

Five steam engineers employed by mining companies in the Grass Valley district, just outside of Helena, about April 10, 1918, demanded a wage increase from \$4.50 to \$5.50 per day. The demands were refused by three mines, and the men walked out, closing down the mines for about three weeks.

For a time, this strike threatened to involve the miners of the Helena, Rimini and Marysville districts, but on May 1, a compromise settlement was effected, the engineers being granted a scale of \$5.00 per day for eight hours. This was satisfactory to the engineers, who returned to work.

GREAT FALLS TEAMSTERS.

Refusal of the team owners at Great Falls to submit to arbitration the demands of the teamsters' union led to a strike on May 1, 1918. Some time previous, Judge G. Y. Harry, Commissioner of Conciliation for the United States Department of Labor, got the teamsters, after they had voted to strike, to rescind their order, while he tried to bring the teamsters and unions together. The team owners gave as the reason for their refusal to arbitrate that the Employers' Association desired to settle the entire labor trouble at Great Falls as one problem. The request of the teamsters being considered reasonable, an advance of 75 cents per day in wages was granted, and the strikers returned to work.

EXPRESS DRIVERS AND HANDLERS.

Following a demand for a ten per cent increase in wages, 25 employes of express companies operating over lines running into Butte walked out July 1, 1918. The men on strike represented about 40 per cent of the total number employed as drivers or handlers. A small increase in pay was voluntarily granted on June 29 under a general consolidation plan, but the increase was not sufficient to satisfy the men.

After being out four days, the drivers voted to end the strike and return to work without promise of further increase in wages. This action was decided upon following a conference with the manager of the local office of the American Express, who called their attention to the announcement of the President of the Company, as carried by the Associated Press, that immediate attention would be given the question of wage and salary increase.

THE LUMBER INDUSTRY

THE LUMBER INDUSTRY

In August, 1917, during the activities of the Industrial Workers of the World, an investigation of living and working conditions in the lumber industry was undertaken at the request of Governor Stewart, by the Labor Commissioner, in conjunction with a representative of the State Board of Health.

The purpose of the investigation was to get first-hand information regarding the health and comfort of the employes, the sanitary accommodations provided, and to ascertain, if possible, whether conditions were such as to warrant the widespread agitation and general unrest which prevailed throughout western Montana.

Insufficient time having been allowed for the investigation, it was deemed advisable by Governor Stewart to have a more thorough and comprehensive report made on the lumber industry, particular attention to be given to sanitation of camps and to working and living conditions. This survey was completed August 14, 1918.

Cordial cooperation of managers, superintendents and foremen made a thorough investigation possible. Through the courtesy of these officials, an opportunity was given to go among the men freely and observe their general working and living conditions. This tour of inspection embraced the counties of Flathead, Lincoln, Sanders, Mineral, Missoula, Powell and Granite. Following is the report:

Few people have any conception of the magnitude of the lumber industry in western Montana. It is true, lumbering operations are not so isolated as formerly. Towns have sprung into existence where the big mills are located, and a few hours will suffice to inspect every phase of lumber manufacture. Those living in the lumber districts are familiar with the class of labor employed, but the average person thinks of the woods as a place for summer recreation and not as a working place for thousands of Americans. The United States census for 1910 shows that there are 40,671 lumber and timber establishments; 784,989 persons engaged in the industry, of which number 48,825 were proprietors and firm members; 19,940 were salaried officers, superintendents and managers; 18,088 were male, and 8,717 female clerks. The average number of wage earners was 695,019.

The commercial timber of western Montana consists of yellow pine, spruce, lodge pole, red fir, white pine, larch and cedar. Montana leads all states in the production of larch.

The prevailing industry of western Montana counties is lumbering. Saw mills and logging camps are very much in evidence. Many farmers have located in the clearings of the lumbering districts.

In 1914, Mr. F. A. Silcox, of the United States Forestry Service, estimated the standing commercial timber of Montana at 65,600,000,000 feet board measure. If to these figures are added the estimated areas of young timber not yet of merchantable size, it shows that the forests of Montana produce an annual growth equal to 700,000,000 feet board measure, or over 1,000 feet of lumber for every man, woman and

child in the State. The foregoing figures indicate that the lumber industry will not dwindle for the lack of raw material for a considerable period.

Mines at Butte, according to the State Forester, consume annually approximately 70,000,000 feet of sound timber, stulls and poles. It is estimated that there are in the mines of Butte over 2,000,000,000 feet of sawed timber, stulls and lagging, about three per cent of the present standing merchantable timber of the State.

Per capita consumption of lumber in European countries, according to the State Forester, varies from 25 feet board measure to 100 feet. Montana, according to these figures, is producing an annual growth of timber far in excess of the needs of her population. The National Forest Service's estimate is that Montana contains about three per cent of the standing timber in the United States, and that the State produces annually one per cent of all lumber manufactured in the United States. Compared with other timber sections, Montana is making inroads upon its growing timber only about one-third as fast as the average state.

Estimates by the forestry service approximate Montana's standing timber at 70,000,000,000 feet board measure, of which nearly 25,000,000,000 feet are privately owned, about 40,000,000,000 feet are found in the national forests, and a little more than 5,000,000,000 feet are on other government lands, including Indian and military reservations.

Statistics gathered in this investigation show the output of timber cut for the State for the twelve months prior to November 1, 1917, to have been 236,408,965 feet board measure. In addition to the lumber, 26,000,000 laths and 25,205,500 shingles were produced. The State Forester has estimated that the consumption of mine stulls and round timbers, if reduced to feet board measure, would amount to more than 15,000,000 feet; that the annual consumption in posts, poles and other material for farm and ranch improvement, and the yearly consumption of telegraph and telephone poles, hewed railroad ties and other material except sawed lumber, used by railroads, reduced to feet board measure, would be equivalent to 25,000,000 more. If these figures are approximately correct, Montana's annual production of lumber is, in round numbers 376,508,965 feet.

Revolutionary changes have characterized the lumber industry in Montana, as well as other states, in the last quarter of a century. Electrical and steam equipment has taken the place of the peavy and cant-hook; the logging road has supplanted the horse and the ox as a means of transportation. In late years, few spring drives have been made in western Montana, logging by railroad having taken the place of this picturesque feature of lumbering. The timber industry moved westward with the tide of immigration. Active operations in the woods of Montana commenced with the decline of the industry in Maine, Michigan, Wisconsin and Minnesota. Modern machinery had begun to supplant hand operations when the big operators took charge of the industry in this State. For this reason, Montana never witnessed the full glamour and picturesqueness of the timberman's occupation of a generation ago.

The cutting season in Montana is confined principally to the winter months. Snow and cold weather are important, as in the old days, in this particular branch of the industry. Since the logging road has penetrated the wilderness, logging operations, with all big companies, continue throughout the entire year. Forty or fifty years ago, in Maine, Michigan, Wisconsin and Minnesota, the cutting season started with cold weather and lasted until spring. Frequently a "January thaw" interfered with sledding and skidding operations, compelling the use of sprinklers on cold nights to put the ice roads in condition for the next day's hauling. In those days, supplies were hauled into the woods on sleds early in the winter. The "tote team," which made regular or occasional trips to the settlements, was the only means of communication with the outside world during the cold months.

A half and even a quarter of a century ago, only the big trees were felled, the smaller ones being considered, if not wholly useless, of little value. Lumber operators have since eagerly sought the small timber left standing in the early cuttings.

Driving conditions have changed in all states. Formerly the logs were piled at a "landing" on some small stream or river, and driven down to the mill during the high water in the spring and early summer. It is customary nowadays to build the saw mill near the supply of timber, and instead of sending the logs down the river, they are hauled to the mill on logging railroads.

Nationality of Woodsmen.

Lumber camps of today are much more cosmopolitan than formerly. In Montana all nationalities are represented, with a preponderance of native-born Americans. Scandinavians predominate over other foreign nationalities. Statistics regarding nativity of employes in the lumber industry were obtained by this Department in 1914. Of a total of 3,785 men working in the saw mills, planing mills and logging camps, 1920 were born in this country, 691 were Scandinavians, 294 Irish, 118 English, 125 Canadian, 117 German, 113 Austrians and Hungarians, 102 French, 65 Finnish, 60 Bulgarian and Roumanian, 27 Scotch, 29 Polish, 26 Russian, 23 Greek, 23 Italian, 24 Hollanders, 5 Welsh, 4 Spanish and Portuguese, 5 Swiss, 2 Montenegro-Servians, 2 negroes and 10 other nationalities. Among the latter were a few Japanese and Chinese, employed as camp cooks. As far as was ascertained, not one Hindu was employed in any capacity.

The original "lumberjack" was a product of New England, a descendant of the first settlers. Lumberjacks came mostly from Maine. There was also a strong sprinkling of "canucks" or Canadians. It is generally acknowledged that these men excelled as woodsmen. Only the physically fit could stand the long hours, hard work and uncomfortable accommodations provided, which accounts for the old-time timberman's being of a hardy type.

A good many of these hardy timbermen came to Montana during the early lumbering and logging operations, but, like other pioneer characters, they have disappeared. Many of the old customs still

remain. Blue and red flannel shirts, high shoes, gaudy mackinaw, and trousers shortened to just below the knees are still in evidence in the towns close to lumber camps and timber localities. The prodigality of the Montana "lumberjack" is proverbial, and the same suggestions of thought, humor and philosophy are heard in all camps as of old, although much of the original dialect of these men has been merged into the language of a new and later generation.

Changes in custom are noticeable among woodsmen. There is less of the useless extravagance. Some of the men, at least, are saving their money. Missionaries frequently visit the camps, and the men are undergoing a gradual change. They are beginning to realize the folly of spending their all in a day's or a week's carouse, and the tendency is to put away a few dollars for an emergency.

A lumberman's life is still no sinecure, and the forests of Montana are anything but a playground for those who follow the calling of a timberman.

Hours of Labor.

Montana lumbering companies now operate on an eight, nine, or ten hour basis instead of working from "daylight till dark." In recent months, the Libby Lumber company, in Lincoln county, and the Mann Lumber company, in Mineral county, have adopted an eight-hour work day. The mill and camps of the Anaconda Copper Mining company, in Missoula county, are working on a nine-hour basis. With these exceptions, ten hours seems to be the universal standard in both saw mills and logging camps. All mills pay straight time for overtime.

Many of the big saw mills operate day and night, working two crews. Where the men work ten hours, the mill is shut down during the noon hour, at midnight, between and six and seven in the morning, and again at night. Mills operating on an eight or nine hour basis have the same regulations except in the morning and evening, when the mill is closed for a longer period. Small mills in isolated localities recognize a ten-hour work day, although in a few instances, during the summer months, some have been reported as working twelve hours.

Certain employes, such as cooks and their assistants, engineers, firemen and watchmen, work longer hours, owing to the character of their employment. Railroad men are frequently on duty after quitting time, on account of accidents. These men are paid on a monthly basis and have no regular hours.

Mills and lumber companies seem to look upon every form of unionism with disfavor and aversion. At any rate, there are no labor organizations among the mill hands and woodsmen working in western Montana.

Some years ago, the Shingle Weavers, Sawmill Workers and Woodsmen's International Union, an organization affiliated with the American Federation of Labor, organized the lumber workers and made considerable progress, but owing to the roving class of workers, and to efforts put forth by the companies to discredit the organization, every

charter was surrendered seven or eight years ago. Since then, little has been accomplished or conceded in the way of improving the condition of employes. Wages are inadequate for such heavy work, in some instances, the hours are long, the men have little choice in disposing of their labor, and practically no voice in adjusting labor controversies and grievances. Aside from these conditions, the men are well fed and humanely treated. There is a strong sprinkling of Socialists and Industrial Workers of the World, particularly in the logging camps, but there is no form of unionism.

Wages and Method of Payment.

No uniform system prevails among the different companies for the payment of employes. Most of the large companies compute wages by the day, and pay the men monthly. In some lines the work is done by contract and wages are paid on a contract basis. Wood choppers are invariably paid by the cord, and tie-makers by the piece. Small contracts are frequently let to woodsmen who pay their own help by the day or month. Saw filers, lumber pilers and other classes of workmen are often paid on a contract basis.

A few companies, particularly in logging operations, calculate wages on a monthly basis and pay accordingly. Wages in the lumber industry vary from year to year. There is also a difference in the wages paid in the various occupations. Saw filers are the highest paid labor in the lumber industry. They are paid by contract and hire their own help, which varies from one to four assistants. In the larger mills they make from ten to fifteen dollars per day after paying their help. Sawers receive from seven to twelve dollars per day, according to efficiency.

As a rule, wages are paid by negotiable check. A few companies still adhere to the system of issuing an order memorandum or identification check, which can be cashed at its face value only at the company's headquarters. This often necessitates a long trip and results in considerable hardship to the men. Where an employe is discharged or suddenly quits his employment, he is usually paid promptly, although in many instances the wage earner has been obliged to wait several days for his money. This condition more often occurs where the ill will of a superintendent or foreman has been incurred. Cash is seldom paid in camps, and the woodsman is often compelled to walk many miles in order to convert his check into money.

Several companies maintain general stores in connection with their operations when there is no other place to buy supplies. Many firms have built company hotels or boarding houses adjacent to the mill, where single men can secure board and living quarters. The company boarding house is usually leased to some responsible party, the company also retaining partial supervision. Company houses are provided for men with families at all important mills and are rented to employes at prices ranging from \$2.50 per month for a two-room cottage to \$13 per month for a five-room house. Lights, water and repairs are included in the above figures. Where conditions prevail

as above described, the community is commonly called a "one man" or "company" town.

Companies maintain commissary departments at their logging camps, where necessary clothing and tobacco can be bought. Credit is extended for these articles from month to month, both at mills and camps, deductions being made from the employe's pay check. Other deductions, aside from the foregoing, are made for board, lodging, hospital fees, and for poor and poll taxes. At mills, deductions for board are usually made by the week, ranging from \$6 to \$7. The uniform charge at the time of the investigation, for board in logging camps, was \$1 per day. In none of the logging camps is a charge made for lodging. This is always free. The charge for board, it is claimed by all companies, is considerably less than the actual cost of the food provided. The truth of this was clearly manifested by the excellent quality and quantity of the victuals seen at the companies' dining rooms and cook houses. No deduction is made in cases of rainy weather, or where other conditions prevent operations.

All companies are strict with reference to the use of liquors. It was never carried in the commissary, and its use was strictly forbidden on the company's premises. Regardless of these restrictions, it was often smuggled into the camps and is always a source of trouble and annoyance to the foremen and camp superintendents.

Accident Prevention.

Occupation in the lumber industry is not only laborious, but hazardous in the extreme. All work incident to logging, from felling trees to transporting logs to the mill, either by teams, logging railroads or river driving, are notoriously dangerous. The principal means of preventing accidents are constant and close supervision by competent superintendents and foremen, and the exercise of prudence by the men.

Machinery used in saw mills runs at great speed. Everything is accomplished under high tension. Accidents are frequent, and every possible precaution should be taken to keep the employes from getting hurt. Prior to the passage of the workmen's compensation law, which provided for safety inspection and authorized the Industrial Accident Board to appoint inspectors under the board's supervision, Montana was conspicuously lax in accident prevention in this line of employment. Other states had previously adopted some form of factory inspection, prescribing certain standards of safeguards and devices for the protection of employes in hazardous occupations. A few mills in Montana, particularly the larger and more modern concerns, became impressed with the "safety first" movement, and adopted effective means for preventing accidents. In many cases, little attention had been paid to accident prevention, and employes, accustomed to dangers, were not aware of risks they ran. Constant inspection and enforcement of the safety provisions law have resulted in the installation of many mechanical safeguards in the lumber industry. Warning signs are now prominently displayed at particularly dangerous points. Accidents are prevented by the carefulness of those

who work about and operate dangerous machinery. Many mill employes are foreigners who cannot read the English language. At one mill, instructions printed in the language workmen were able to read were posted.

Safeguards about dangerous machines and the elimination of carelessness have materially reduced the number of accidents in Montana's lumber industry during the past few years. The timber companies were anxious to receive suggestions and to remedy shortcomings that might result in accidents. It is claimed that practically all accidents are preventable and there is therefore much to be accomplished in the timber industry in Montana, in safeguarding and protecting the workmen.

Sanitary Safeguards and Regulations.

Many companies are not only alive to the importance of accident prevention, but realize the necessity for sanitary safeguards and regulations. A few up-to-date mills have installed sanitary drinking fountains. Roller towels are still in use, however, in all the logging camps visited, notwithstanding that particular attention is being paid to other forms of sanitation.

Bath houses, both at sawmills and logging camps, have been provided by most large companies. These are maintained by the company. The ordinary bath tub is used in many places, while a few companies have installed shower baths. Where a bath has been provided at saw mills, it is not generally used by the men. Mill employes, as a rule, do not avail themselves of the mill bath, preferring to bathe at home.

Wherever possible, sites for logging camps are selected with particular attention to drainage and a supply of pure water. The location is usually near a spring or mountain stream, more often the latter. The water is usually piped to the camp by means of a flume, insuring a supply at all times.

The bunk houses, dining room, kitchen and other buildings are of portable construction. Sometimes they are loaded on flat-cars without being taken apart. The dining room and kitchen are generally under the same roof. This building is usually the largest and most important in the camp. Until recently, bunk houses were of a frame construction and were built to house twelve or more men. Specially designed box cars are now being used by several companies. The cars are constructed of wood, painted inside and out, and equipped with bath and double-deck steel bunks with steel frames and mattresses. The cooking is done in one car, while an adjacent car is used for a dining room. Another car is used for an office and commissary department. The size of the cars is usually 12x40 feet. A car will house 12 men.

No camp, however well regulated and cleanly, is entirely free from lice and bedbugs. Fumigation is often neglected until lice and bedbugs become a serious menace. At least a few companies operating with machinery disinfect their bunk houses with steam from locomotives or donkey engines, from one to three times a year.

Where steam is not available, other methods of disinfecting are employed.

Slops and other garbage are fed to hogs, which are not always kept at a safe distance from the camps.

The Libby Lumber company, one of the large lumber concerns of the State, maintains a farm in connection with its operations, and all garbage at the saw mill, board house and lumber camps is placed in proper receptacles, to be hauled and fed to the hogs on the company's ranch.

Nowadays teams are not generally used in logging, except by small companies operating in the winter, and as a consequence, few stables were found adjacent to the camps.

Aside from trivial ailments, comparatively little sickness is found in the camps. Occasionally an epidemic of typhoid fever breaks out, but it can hardly be claimed to be more prevalent in the woods than in adjacent towns. Cases of blood poisoning are the only occupational disease found. Diarrhoea is also found. Trivial injuries often result in serious cases of gangrene. This is commonly attributed to the pitch or some other timber ingredient. The men, as a rule, appear to be healthy, although in some occupations the work is heavy and sometimes breaks them down.

Distribution of Employment.

In connection with this survey, an effort was made to classify and segregate the occupations and employments in the various departments of the timber industry, but in this endeavor the Department was only partially successful. While the list secured is not complete, the enumerations given in connection with the wages paid are sufficiently accurate to give a fair idea of the varied employments.

While there are a great many skilled workmen in the lumber industry, a large majority are semi-skilled. In all departments a certain amount of experience is important, but in recent years skilled woodsmen have become scarce and much of the help has been recruited from inexperienced foreigners. A modern saw mill, with its labor-saving equipment and devices for the expeditious handling of logs and lumber, does not require as much help as formerly.

Most companies have a planing mill in conjunction with the saw mill. This is usually in a separate building, but is always an important part of the plant. In addition, some mills are equipped with machinery for manufacturing laths, wooden boxes, sashes, doors and window frames. Even with these additional departments, hand work has been displaced to such an extent with labor saving equipment that the number of men employed is comparatively small. Similar conditions prevail in the woods, where the installation of machinery has resulted in the displacement of a great deal of hand labor; however, there are several positions in the lumber industry which are important and responsible, requiring much skill and efficiency.

The output of all mills depends largely upon the sawyers and saw filers. So much depends upon the capability and responsibility of these men that they receive more pay than other mill employees.

Edgermen, trimmermen, carriage riders, setters and sorters require skill and efficiency. They receive more money than other workmen. Millwrights and engineers have also considerable responsibility. Machine men are those who operate the steam skidders and donkey engines in the woods. Aside from these and the logging railway employes, the most important workers in the logging department are teamsters, sawyers, swamper and skidders.

Duration of Employment.

Employment is not continuous and steady in the lumber and timber industry in this State. The entire industry is susceptible to business depressions and other unavoidable conditions which are apt to cause prolonged shutdowns in the mills and logging camps.

Logging is essentially a seasonal occupation, depending largely upon snow and cold weather. Ordinarily snow falls early and heavy in this region, remaining all winter in sufficient quantities for sledging and skidding purposes. From October 1 to February 1 is usually the busy season. A good woodsman is quite sure of employment during this part of the year. A few camps, where logging is done by machinery, work in the summer, but the men employed are few, compared with those working in the winter.

Operators claim that the labor employed is not as dependable as in former years. This is probably true. The work was then more isolated. A trip to town or to the railroad was an undertaking when the camps were located miles back in the wilderness. The men usually went into the woods early in the season and remained all winter. Nowadays they are constantly shifting from place to place, the entire crew of a mill or camp changing in a short time. Men quit now without apparent cause. Many of these men work in the railroad construction camps and in the harvest fields in the summer and fall, and return to the woods in the winter. As a rule, men working in the woods are steadier than those employed in railroad construction, but they are less dependable than workers in the ordinary occupations.

Many mills do not operate throughout the entire year. Repairs are frequently necessary, and these are usually made during the winter months. Some mills are compelled to shut down during a period of the winter for want of logs. For want of market, others are compelled to shut down or curtail their output at stated periods. During April or May is probably the period of least activity, while November, when practically all the saw mills are running and logging operations are particularly active, appears to be the month in which the greatest number of men is employed.

It will thus be seen that the great majority of employes in logging operations work from four to six months in the year.

For a number of years past, a few concerns have closed their saw mills in winter, utilizing the mill hands in logging operations, and thereby providing steady work for employes.

Application Forms.

All the large companies keep a personal record of their employes. This is done by means of application forms, which the workmen are required to sign before entering the company's employment. This system has been in vogue for many years.

Following the adoption of the workmen's compensation act, these forms were changed to comply with the new law.

Various forms are used by the different companies, but all contain a clause to the effect that the applicant waives the provisions of the first aid feature of the workmen's compensation law, that he desires to enter into a mutual hospital contract with the company, and that he agrees to a deduction of one dollar per month from his earnings for hospital, medical and surgical attention. This feature of the application has caused some dissatisfaction.

In addition to the foregoing, the men are expected to furnish such data as name, age, address, occupation, nationality, height, weight, color of hair and eyes, marks of peculiarity, place born, beneficiaries, if any, with names and addresses. Questions similar to the following must also be answered: In case of sickness, who should be notified? Do you use alcoholic liquors? Have you hernia? Have you ever had hernia or other physical ailment and defects? Have you previously been employed by this company? Where last employed, and in what capacity?

There are various reasons for acquiring these personal records of employes, and the data thus secured is beneficial in many ways. In case of accidents, where friends and relatives should be notified, the records are extremely useful, and in making reports to the Industrial Accident Board they are important in furnishing required data. The records are necessary for statistical purposes and are of advantage in other ways.

Hospital Contracts.

In some states, large lumber companies have built and equipped hospitals for the treatment and care of sick and injured employes. There are no company hospitals being maintained in Montana at the present time. Practically all the important companies in Montana enter into contracts with some nearby hospital. Treatment and care are not provided for in cases of venereal diseases and sickness resulting from intoxication.

These hospital contracts are drawn to conform with the workmen's compensation act, which became effective July 1, 1915. Under the workmen's compensation act, first aid treatment is provided during the first two weeks after the date of receiving an injury. First aid consists of reasonable medical and hospital service and medicines when needed, in an amount not to exceed fifty dollars. In lieu of this treatment, the act stipulates that the provisions of the first aid clause may be waived by the mutual consent of employers and workmen, and mutual agreements enter into, providing for hospital accommodations and medical treatment.

The Industrial Accident Board is given supervision over all hospitals maintained wholly or in part by payments by workmen, and no

assessment in excess of one dollar a month for each employe is allowed, unless the board is satisfied that the cost of the service rendered exceeds that sum. Previous to the time this act went into effect, hospital contracts were maintained, and many private hospitals adjacent to the lumber camps and saw mills sold "hospital tickets" which entitled the holder to hospital and medical treatment, at the rate of one dollar a month or ten dollars a year.

Many of the mutual hospital contracts drawn in lieu of the first aid feature of the workmen's compensation act go further than the law contemplates. They provide necessary medical, hospital and surgical attendance as long as needed, not limiting the treatment and services rendered to the two weeks' period. The methods used by the companies to make these hospital contracts mutual between employer and workmen have been a source of some dissatisfaction to the men. Application forms or agreements are used in nearly all instances, stating that the company and the undersigned employe mutually agree to waive the provisions of 16-f of the Montana workmen's compensation act, providing for first aid treatment, and that the said undersigned employe elects to accept and receive the benefits of the hospital contract entered into between his employer and the hospital stipulated in the contract. Authorization is also given the company to deduct, in consideration of the benefits of the hospital contract, the sum of one dollar for each calendar month, from the wages of the undersigned employe.

The men claim that the one dollar hospital fee withheld is an arbitrary deduction from their wages, and they have no choice in the matter, inasmuch as they are compelled to sign the agreement before they are given employment by any of the companies.

The choice of doctors is another bone of contention, although in a few cases this has been obviated by inserting a clause in the contract, to the effect that at any time, the sick or injured employe may call into the hospital for consultation any practicing physician, by paying the additional cost and expense of the outside doctor. On the whole, there is little dissatisfaction over the hospital contract and medical treatment furnished, it being to the interest of the companies to have the men well cared for, so that the sick and injured may recover as rapidly as possible, thereby lessening the expense of treatment.

Equipment for First Aid Treatment.

Much attention is directed to first aid work. Medical supplies for emergency use are carried by many companies, both in their saw mills and camps. This equipment consists of a quantity of absorbent cotton, absorbent lint, sterilized gauze, cotton for bandages, adhesive plaster, antiseptic solution, a tourniquet, scissors, tweezers and a first aid manual which gives full directions and instructions as to the proper methods to pursue where the services of a doctor are not available.

First aid supplies are kept in some place accessible in the camp or saw mill.

This equipment is particularly necessary in the logging camps, where most of the accidents occur. Practically all large companies have first aid supplies, but many of the small concerns, which contract from the bigger companies, are paying scant attention to the care of sick and injured. This fact is to be regretted, in view of the inaccessibility of many camps, where it is impossible to secure prompt and efficient medical and surgical attention.

Ambulances, as far as we were able to ascertain, are not supplied by any lumber company or hospital, doubtless because the limited number of accidents and the small number of men employed do not justify such equipment. Automobiles are usually available to bring in the injured, and where logging roads are being operated, an engine can be detached and used for this particular service.

In some states, a medical cabinet law has been enacted. This makes mandatory upon all lumber companies and other concerns conducting a business in which power-driven machinery is operated, to equip their plants with medical chests and appliances for use in emergency cases. It is gratifying to note that practically all important companies in Montana have voluntarily installed equipment and supplies to give prompt and proper treatment to injured employes.

Abuses of Private Employment Offices.

Abuses are not as common as formerly in the employment of help in the lumber industry. Few complaints were heard. There are some cases where injustices are perpetrated by unscrupulous employment agents, who scheme to victimize the unwary. Likely these abuses are due to the fact that the State assumes no jurisdiction over private employment agencies.

The nature of the work is often misrepresented. Unreasonable fees are sometimes charged for scouring positions which the men are incapable of filling.

While I was not able to get all facts relating to the evils of the fee employment system, sufficient is known to make it apparent that some measure of relief should be afforded by the State. Private employment offices should at least be placed under state control to regulate them, or, better still, they should be abolished entirely.

Help has been unusually scarce in the lumber districts of Montana for the past two years. This condition is undoubtedly due to the war. Most of the help is now recruited at the mills and camps or in the small nearby towns. Nowadays the men visit the mills and camps in search of employment. Many, however, are picked through employment offices at Missoula, Kalispell and Spokane. A few have been brought in from the Twin Cities and from other lumbering states.

Small Logging Camps.

No opportunity was given your representative to observe conditions in the small logging camps, which commence operations in September, October and November of each year. This is unfortunate, as a large proportion of the logging operations are carried on during the fall and winter months. Many of the concerns, operating at this season, are small outfits, sub-contracting from other contractors

or big lumber companies. Few of them, I was reliably informed, have adequate equipment, and they pay little attention to the comfort of employes and to sanitary conditions in camps. Many of these camps, if reports can be credited, are makeshifts, unsanitary and without accommodations. Although the men are usually fed well, they receive poor attention in other particulars.

Improved Standard of Living.

It is a decided pleasure to learn of important improvements made by several companies since this investigation of working and living conditions was undertaken a year ago. It is gratifying to be able to report that managers and superintendents have responded to our appeal for improved standards of living for employes. In some camps, heretofore without these conveniences, baths have been installed. Several companies are furnishing hot and cold water, and have provided places where the men may do washing. Another general and noteworthy improvement is the installation of double-deck steel bunks, in place of the wooden bunks so often infested with vermin. Wire bed springs and mattresses have displaced straw ticks.

A few companies are awake to the importance of camp sanitation. This was impressed upon your representative by the quarters provided for employes at both mills and logging camps. The bunk houses were in a cleanly state, and the quarters were free from dirt and filth.

An important sanitary provision often neglected is the failure to exclude flies from cook houses and dining rooms. Of equal importance is the thorough screening of vaults, necessary to the prevention of the carrying of typhoid germs by flies.

The location of toilets, stables and hog pens, close to the kitchen, dining rooms and living quarters, deserves severe criticism. Stables, toilets and hog pens should be placed at a safe distance from the living quarters, on lower ground if possible, and at one end of the camp. Hogs should always be penned up and never be allowed to run at large, as is frequently the case. Special care should be taken to exclude flies from all places in which food-stuffs are exposed. Locating stables, hog pens and toilets at a distance from the balance of the camp, is a splendid precaution against dangerous epidemics of typhoid and other diseases.

It is a matter of regret that these necessary and important precautions are frequently neglected.

In view of the above circumstances, your attention is called to the necessity for a camp sanitation law, such as the legislature of California enacted in 1913, providing for supervision and regulation of logging and construction camps.

We were advised by one mill owner that members of the Western Montana Lumbermen's Association had recently advocated the appointment of a camp inspector to be paid by the association. Inasmuch as large companies, who are doing all that is possible to improve the conditions of their employes, are criticised and made to suffer, because of the lack of accommodations in smaller camps, and

on account of their unsanitary conditions, it is believed the large concerns would welcome the passage of a camp sanitation law.

Labor-Saving Machinery.

Description of the lumber industry would be incomplete without mention of the advancement that has been made in the invention and introduction of labor-saving machinery with which modern mills are equipped. These new machines and devices have increased the output of all plants. Even more remarkable changes have taken place in the equipment of logging camps, where the steam skidder and donkey engine have supplanted the methods of former days.

Most of the mills use steam for motive power, although the mill of the Western Lumber company at Bonner is operated by electricity. Sawdust is the only fuel used, and it is fed automatically into the fire boxes. Waste wood, of which there is a vast accumulation from slabs and other material, is sold when there is a market, but it is usually carried into a furnace by automatic feeders, and is burned to get it out of the way.

Establishment of national forests by the Federal Government, and the means and care taken to increase their area and value, indicate that there is no immediate cause for alarm concerning the destruction of our timber resources. Most of the best timber land, outside of the state holdings and the national forests, is held by large owners who are cutting conservatively and leaving the immature timber for the future. An element of danger is ever with us in the forest fires, which annually consume much merchantable timber, destroying small trees and laying the country waste.

It was noticeable in this survey that drinking and drunkenness, while not as prevalent as formerly, are still a great curse to the workingman. Liquor is largely responsible for much of the bitterness and wretchedness found among migratory laborers.

Production Essential to War Work.

Inquiry disclosed that all the big companies are furnishing material essential to the government's program for the successful prosecution of the war. Probably one-third of the lumber output of the State was going to the government at the time of this investigation. This material is being purchased through the Emergency Fleet Corporation and the Regional Purchasing Committee.

Montana forests are supplying ties and bridge timbers for railroads, lumber for cantonments and ammunition boxes, and specially seasoned lumber for the interior finish of ships. It is interesting to note in this connection, that Montana larch is being used extensively for the interior finish of Uncle Sam's new fleet. Half the output of a big mill in northern Montana was larch, going to the Emergency Fleet Corporation.

The lumber camps of the Anaconda Copper Mining company and the Polley's Lumber company in Missoula county, and the camps of the Mann Lumber Company in Mineral county, are getting out a considerable quantity of spruce, white pine, western pine, fir and

hemlock logs, of sufficient size and quality for the manufacture of lumber suitable for aeroplane wings. A government inspector approves all logs before they are sawed, the regulation length being 20 feet 6 inches and 22 feet respectively. The sawing is all done at the big mill at Bonner, owned by the Anaconda Copper Mining company, where dry kilns have been constructed. Ordinarily it would take six months to properly season this lumber for aeroplane construction, which can now be done by artificial methods in about two weeks.

In view of the interest being taken in the production of aeroplanes, inquiry was made at all plants, with reference to the quality of spruce in this State. In many cases, competent authorities were of the opinion that the spruce grown in Montana is not suitable for aeroplane construction; nevertheless, suitable timber for this purpose is found in the Big Blackfoot country near Missoula and also in the western part of Mineral county. One mill owner in Flathead county volunteered the information that unlimited quantities of spruce were available on the south fork of the Flathead river. The trees measure from four to five feet at the butt and carry about 75 feet of clear timber. Surprise was expressed that this timber, which is in the government forest reserve, was not being used in aeroplane construction. Similar reports were heard concerning the size and quality of spruce along the Yakt river in Lincoln county.

A number of mill owners claim the timber business is experiencing a dull and depressing period. Others are working over time to keep up with orders. It was observed that crop failures throughout Montana were affecting the small mills, particularly along the Great Northern railroad in northern Montana. Many small mills in that locality were closed down for want of a market. The larger concerns, however, are selling a portion of their output in other states, and, with additional orders received from the government, are able to maintain a normal production.

At the time this investigation was undertaken, numerous forest fires were reported in the timber sections in western Montana. The fires spread rapidly and did considerable damage because of a shortage of fire fighters. These fires were put out by the heavy rain which fell during the last week of July.

Ten-Acre Community Garden.

War activities are not overlooked by the men employed in the lumber industry. At Bonner, where employees had a war garden last year, efforts have been increased, with the result that the acreage is larger and the ground is made to produce the maximum. The Anaconda Copper Mining company supplies the land and the advice of an expert gardener, and the ten-acre tract shows that it has been planted and cultivated along lines to make it add to the nation's food store.

Employees are encouraged by the company to do war gardening. In addition to supplying an expert gardener to advise with the workers, the company buys the surplus production at regular market prices and uses it at its other camps. There is much interest in this

war garden, both as a patriotic undertaking and as a financial proposition. Everyone at Bonner, including those who do not garden, takes pride in this accomplishment.

I. W. W. Activities

During 1917, lumbering operations were seriously handicapped by the activities of the Industrial Workers of the World. The loss incurred by reason of the agitation and depredations of this organization can only be approximated. Probably the actual money loss alone to employers would aggregate two million dollars.

Early in April, 250 "Wobblies" established a "jungle camp" near Fortine, in Lincoln county, and by threats and intimidation, compelled the river drivers working for the Eureka Lumber company to quit work. As a result, the big mill at Eureka was compelled to close, throwing 400 men out of employment.

Federal troops were sent to Libby a few weeks later, at the request of citizens and county authorities.

In other counties, the I. W. W. were terrorizing citizens where similar conditions existed.

During the entire summer, lumber companies were continually harassed by strikers and I. W. W. agitators. Although the men walked out without making any demands on the companies, it was claimed that the object of these depredations was to improve working and living conditions among lumber workers. During June, July and August, all companies were guarding their mills, and patrols were placed at frequent intervals in the woods to keep down incendiary fires.

At one time, 4,500 men were employed by the Forestry Service in fighting fires. As a result of these activities, many mills were obliged to suspend operations, while others continued to work short-handed. On this account, the cost of production was greatly increased. Few companies were producing fifty per cent of their normal output.

August 24, Federal authorities raided the I. W. W. headquarters at Spokane and arrested a man named Rowan and 27 other disturbers who were directing the I. W. W. activities in western Montana, northern Idaho and eastern Washington. From this date, the situation improved.

It was generally thought that the activities of the I. W. W. in the lumber districts were the result of German propaganda. It was particularly noticeable that the strikers, as a rule, were well supplied with money. In view of the lumberjack's proverbial prodigality, this fact would indicate that financial assistance from some unknown source was being furnished.

Although there is now a scarcity of help in the lumber industry, due to the war, there is very little agitation or dissatisfaction.

Value of Wood Products.

As a result of this investigation, this Department has been made to realize that the forests of Montana are one of the State's greatest resources. A trip through the timbered section cannot help impressing

one with the magnitude and importance of the State's forests. As long as judicious cutting is practiced and fires are kept out of the woods, the timber will last for an indefinite time. Proper protection and preservation are necessary if a timber supply is to be maintained for all time. With a crop of millions of feet of timber being harvested annually, a definite policy of conservation and reforestation should be inaugurated and maintained.

Much has been heard in recent years about the exhaustion of our timber supply. The reproducing process of our forests is illustrated by a recent article with reference to the age of trees. A scientist who had examined into this matter carefully in some of the eastern states estimated that it takes 250 years to produce a full grown spruce tree, while much of the mature pine grown in New England takes from 500 to 1000 years.

Mr. John X. Preston, assistant district forester, at Missoula, has furnished the State Forester with the following interesting contribution:

"A mature forest is defined as a forest so old that growth in height is practically at an end, and diameter growth is decreasing. The age at which any species may be considered mature may vary within exceedingly wide limits. As a general rule, maturity for a given species varies with the site, an individual tree on a favorable site maturing less rapidly than one on a poorer site.

"With this in mind, you can, I believe, see the difficulty of attempting to set a definite age at which any individual tree species reaches maturity, and especially for an area as large as the State of Montana.

"Rotation is the period represented by the age of a forest or part of a forest at the time when cut or intended to be cut. The rotation of the different species or types, is probably the nearest approach to the information desired that can be furnished.

There is given below in tabulated form a rotation for each species, together with the average height, average diameter, breast high, and average volume in board feet at this age. Forest management on the National Forests is still in its infancy, and consequently these figures are very general and will without doubt be subject to change as this phase of forestry is further developed.

Species	Rotation Years	D. B. H. Inches	Height Feet	Volume Bd. Ft.
Douglas Fir	150	16	114	350
Larch	150	13	96	220
Larchpole	140	9	98	60
White Pine	120	16	112	385
Western Yellow Pine	150	16	81	220

"These figures should not be interpreted as absolute. They are based on averages over a large variation in site conditions. For example, larch trees may be found 200 or more years of age, and perhaps 30 inches in diameter, which taken as individuals, are not necessarily mature. It should also be understood that the rotation is the age at which we now believe the stands should be cut, and that the size in D. B. H. and height are the figures based on an average obtained

by the investigation of trees of that age which are of slower growth than if produced under management with a rotation of that length in view."

The federal government has wisely established throughout the west, natural forest reserves. We shall therefore avoid many of the mistakes of Europe and the eastern states, and profit by their experience and neglect in allowing excessive cutting of timber and forest destruction.

With the rapid growth of manufacturing in Montana, this Department is inclined to believe that there are many industrial opportunities open and undeveloped, closely allied and connected with the timber products. There is undoubtedly valuable material in the waste burned by Montana logging companies and saw mills. At the present time, owing to a lack of transportation facilities and excessive freight rates, there are no markets for the waste which could be sold for firewood or utilized in making turpentine, wood alcohol and other products.

While Montana produces no hardwood suitable for furniture manufacture, spruce, birch, larch and other timber which can be used in certain kinds of manufacturing are found in almost inexhaustible quantities. "Wood novelties," a term covering almost numberless small articles, could be manufactured cheaply, thereby utilizing raw material which is now considered worthless, except for fuel. Spool and novelty manufacturing concerns in the east are buying raw material in localities where suitable wood is becoming scarce. Here in Montana, enormous quantities of wood, suitable for use in these factories, are burned as waste. Until recently these manufactories bought logs and timber at considerable expense. Not long ago, the United States Forestry Service established a wood waste exchange, where mills and factories may list waste material for sale. This has enabled spool and novelty manufacturing concerns to purchase material of good quality at a considerable saving.

It goes without saying, that pulp and paper mills will eventually locate in this State. In order that profits may be satisfactory, these mills will be built where the raw material is easily accessible and abundant, and where natural water power can be utilized. The value of Montana forests, properly conserved and utilized, is hard to estimate. Great possibilities would appear to be before Montana in diversified lines of manufacture.

TABLE NO. 1—STATISTICS OF WAGE EARNERS.
Wages Paid in the Lumber Industry in Western Montana, July, 1918.

THIRD BIENNIAL REPORT

63

	A. C. M. Lumber Co.		Libby Lumber Co.		Polleys Lumber Co.		Mann Lumber Co..		Baird Harper Lumber Co.		Eureka Lumber Co.		Somers Lumber Co.	
	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage
SAW MILL	\$		\$		\$		\$		\$		\$		\$	
Pond men.....	4.97½		3.76		†		4.00		4.40		4.00		3.75	
Deck men.....	3.99		4.00		4.00		4.00		4.00		4.00		3.75	
Carriage rider.....	4.97½		3.76				5.50		4.50		4.25			
Carriage setters.....	4.55½		4.24				5.50		5.00		5.00			
Sawyers.....	3.91½		8.00		5.00		7.75		8.00		8.50		5.00	
Tail sawyers.....	4.03½		3.76		9.00		4.00		4.00		3.75		8.50	
Edgers.....	3.51		4.50		3.75		5.25		5.00		5.50		3.75	
Logging pickets.....	3.10		3.20		5.00		4.00		3.75		3.75		3.00	
Resaw operators.....			4.00		3.65								3.75	
Transfer men.....	3.80		3.76						4.00		4.00		4.00	
Trimmermen.....	4.40½		3.76		4.00		4.50		4.50		4.00		3.75	
Helpers.....	3.80		3.76				4.00		4.00		3.75		3.75	
Skidder men.....	4.18		3.75				5.00		4.50		3.75		4.25	
Graders.....	4.74		4.00		4.00		5.00		5.00		4.00		4.00	
Lath men.....	3.79½		†		4.00		4.25		4.00		3.75		3.75	
Others.....	4.15		3.76		4.00		4.00		3.50		3.75		3.75	
Handy men.....	3.89½		3.75		3.65		4.00							
Sweepers.....	3.89½		3.48											
Millwrights.....	5.27½	\$ 146.00	5.00			\$ 120.00				\$ 160.00		\$ 140.00		\$ 150.00
Asst. millwrights.....	6.27		4.25				5.50			150.00		125.00		115.00
Engineers.....	5.22½		4.24		5.50							140.00		170.00
Firemen.....	4.65½		3.76		4.59		4.75		4.00					135.00
Saw filer.....	†		†		16.00		8.00		7.00		4.00		†	117.00
Sorters.....	3.80		3.76		3.65				4.00		4.00		4.00	
PLANING MILL														
Machine feeders.....	4.18		3.76		4.18		5.00		4.00		4.25		4.25	
Graders.....	4.48½		3.76		4.15	110.00	4.50		4.00		4.50		4.25	
Resaw operators.....	4.46½		4.24		3.90		4.50				4.00		3.75	

TABLE NO. 1 (CONTINUED)—STATISTICS OF WAGE EARNERS.
Wages Paid in the Lumber Industry in Western Montana, July, 1918.

	A. C. M. Lumber Co.		Libby Lumber Co.		Polleys Lumber Co.		Mann Lumber Co.		Baird Harper Lumber Co.		Eureka Lumber Co.		Somers Lumber Co.	
	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage	Daily Wage	Monthly Wage
Molding men.....	4.46½	141.50	3.76	112.80	3.90	117.00	4.00	120.00	4.00	120.00	4.50	130.00	4.25	127.50
Trimmers.....	4.18	125.40	4.24	127.20	4.40	132.00	4.00	120.00	4.50	135.00	5.00	150.00	3.75	112.50
File-s.....	4.18	125.40	4.40	132.00	4.40	132.00	4.00	120.00	4.50	135.00	5.00	150.00	3.75	112.50
Machine tenders.....	4.18	125.40	4.40	132.00	4.40	132.00	4.00	120.00	4.50	135.00	5.00	150.00	3.75	112.50
Shel graders, etc.....	4.18	125.40	4.40	132.00	4.40	132.00	4.00	120.00	4.50	135.00	5.00	150.00	3.75	112.50
Helpers and feeders.....	3.80	117.60	3.78	116.40	3.65	110.40	4.00	120.00	4.50	135.00	4.25	127.50	4.25	127.50
Car loaders.....	5.22½	156.75	4.00	120.00	4.00	120.00	4.00	120.00	4.00	120.00	4.00	120.00	4.00	120.00
Shiprent checkers.....														
MILL YARD														
Scaler.....	3.99	119.70	3.48	104.40	4.00	120.00	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Trimsters.....	5.22½	156.75	5.00	150.00	3.90	117.00	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Piers.....	4.46½	133.95	3.76	112.80	3.90	117.00	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Yard sorters.....			3.48	104.40			4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Trv lumber loaders.....							4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Saw filler.....														
Motorman.....														
Brakeman.....														
LOGGING DEPART- MENT (with machinery)														
Foreman.....	4.18	125.40	4.00	120.00	3.80	114.00	4.00	120.00	4.00	120.00	4.25	127.50	4.25	127.50
Sawyers.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Skidders.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Machine men.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Engineers.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Firemen.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Loaders.....	4.18	125.40	4.00	120.00	4.25	127.50	4.00	120.00	4.00	120.00	4.25	127.50	4.00	120.00
Rippers.....	5.22½	156.75	4.00	120.00	4.40	132.00	4.50	135.00	4.50	135.00	4.50	135.00	4.50	135.00
Blacksmiths.....					5.10	153.00	4.50	135.00	4.50	135.00	4.50	135.00	4.50	135.00

THIRD BIENNIAL REPORT

65

LOGGING DEPARTMENT (with team)									
Scalers.....	o 110.00	o 90.00	.....	.....	.....	.....	.....	.....	o 105.00
Camp clerks.....	o 125.00	o 85.00	.....	.....	.....	.....	.....	.....	o 100.00
Cooks.....	o 150.00	o 150.00	.....	.....	.....	.....	.....	.....	o 150.00
.....	o 75.00	o 75.00	.....	.....	.....	.....	.....	.....	o 90.00
LOGGING RAILWAY									
Sawyers.....	4.18	4.00	4.00	.....	.....	.....	.....	.....	4.25
Skidders.....	4.18	4.00	.....	.....	.....	.....	.....	.....	4.00
Swampers.....	4.18	3.76	.....	.....	.....	.....	.....	.....	3.75
Top loader.....	5.22½	.....	4.00	.....	.....	.....	.....	.....	4.25
Hookers.....	4.46½	.....	4.00	.....	.....	.....	.....	.....	4.00
Tail-hewn men.....	4.18	.....	.....	.....	.....	.....	.....	.....	.....
Cook.....	o 150.00	.....	.....	.....	.....	.....	.....	.....	o 150.00
Cook.....	o 75.00	.....	.....	.....	.....	.....	.....	.....	o 90.00
Clark.....	o 135.00	.....	.....	.....	.....	.....	.....	.....	o 115.00
Barn boss.....	o 80.00	.....	.....	.....	.....	.....	.....	.....	o 90.00
LOGGING RAILWAY									
Section men.....	3.50	3.48	3.75	.....	.....	.....	.....	.....	4.00
Locomotive engineers.....	5.25	.....	.....	.....	.....	.....	.....	.....	5.75
Locomotive firemen.....	o 172.00	o 170.00	.....	.....	.....	.....	.....	.....	4.25
Brakemen.....	o 100.00	.....	.....	.....	.....	.....	.....	.....	4.00
Log unloaders.....	o 120.00	.....	.....	.....	.....	.....	.....	.....	4.25
Car repairers.....	4.27½	3.76	4.00	.....	.....	.....	.....	.....	4.25
Blacksmiths.....	4.75	4.00	.....	.....	.....	.....	.....	.....	4.00
Loaders.....	o 135.00	.....	4.50	.....	.....	.....	.....	.....	o 140.00
RIVER DRIVING									
Drivers.....	4.46½	.....	.....	.....	.....	.....	.....	.....	4.25
Swampers.....	.....	.....	.....	.....	.....	.....	.....	.....	5.75
Handy men.....	.....	.....	.....	.....	.....	.....	.....	.....	5.00
Bontmen.....	.....	.....	.....	.....	.....	.....	.....	.....	5.00
Tin-keeper.....	.....	.....	.....	.....	.....	.....	.....	.....	6.25
Cook.....	.....	.....	.....	.....	.....	.....	.....	.....	o 115.00
Cook.....	.....	.....	.....	.....	.....	.....	.....	.....	o 145.00
Cook.....	.....	.....	.....	.....	.....	.....	.....	.....	4.50
MACHINE SHOP									
Machinists.....	o 160.00	4.76	.....	.....	.....	.....	.....	.....	o 125.00
Blacksmiths.....	6.17½	4.24	.....	.....	.....	.....	.....	.....	o 140.00
Blacksmith helpers.....	5.22½	3.76	4.00	.....	.....	.....	.....	.....	4.25
Truck repairers.....	.....	.....	.....	.....	.....	.....	.....	.....	4.50

†Contract. ‡Two shifts. §Chief. *Contract \$9.97½ per saw per 9-hour shift. °With board.

Note: In most mills the saw filer is paid on a contract basis. He is required to furnish his own help, which varies from one to five assistants, according to the size of the mill. The A. C. M. company's mill at Bonner pays \$9.97½ per saw per shift. As they operate three double cut-hand saws, the saw filer receives \$29.91½ per day; and when operating at full capacity both day and night, he receives \$59.83 per day. Out of this amount he pays six assistants from \$4.00 to \$7.00 per day. A different system prevails at the Eureka Lumber company's mill at Eureka. This mill has five only gang saw in the state. The band saw filer gets \$10 per shift; and the gang saw filer, \$6 per shift, which represents their own wages. In addition, wages are paid direct to several assistants. All salaries under \$3.00 per day represent the wages of boys over sixteen years of age, working during the vacation period.

GOLD DREDGING IN MONTANA

GOLD DREDGING IN MONTANA

Few people realize the immensity and importance of the gold dredging industry in Montana, particularly the operations which are being carried on by the Conrey Placer Mining company, with headquarters at Ruby, Madison county.

This company is operating four dredges, known as Nos. 1, 2, 3 and 4, all of which have been particularly designed and constructed for successful operation under the peculiar and difficult conditions found in that locality. Company engineers were employed in designing the gold ships, but the actual work of building and construction was accomplished by the Marion Steam Shovel company, of Marion, Ohio.

Dredges Nos. 1 and 2 were especially designed for digging in the shallower gravel of Alder gulch proper, while Nos. 3 and 4 are of a larger type and are working the gravel to a much greater depth where Alder gulch opens into Ruby valley.

Boston, New York and Washington capitalists are heavily interested in the Conrey company, although Harvard university is said to own the controlling interest, which came to that institution as a bequest from Gordon McKay, a millionaire manufacturer of Newport, Rhode Island.

The operating headquarters of the company are at the small town of Ruby, about two miles from the railroad which terminates at Alder station. The village of Ruby sprang into existence a few years ago as a result of the extensive operations of this company in that immediate vicinity, and is situated at the entrance to Alder gulch—one of the most famous if not the most productive placer deposits ever discovered. Midway up the gulch is the historic village of Virginia City, at one time the capital and most important point in the state, with a population during the height of its prosperity variously estimated at from 10,000 to 20,000 people.

The most productive period of the placer mining at Alder gulch occurred from 1863 to 1875. This gulch was extremely rich for its entire sixteen miles in length. No accurate account has been kept of the production taken from these placer deposits, but various authorities have estimated the gross amount of gold mined, at from \$100,000,000 to \$200,000,000.

To Professor N. S. Shaler, who was then Dean of Mineralogy at Harvard university, is given the credit for the successful development which is being carried on by the Conrey Placer Mining company. Tests made by him in 1898 proved conclusively that the portion of Ruby valley which receives the wash from Alder gulch was profitable dredging ground, and as a result of his investigations and recommendations, the continuous operations which have been in progress in this locality for the past twenty years were undertaken.

Costly experiments, however, characterized the initial attempts at dredging in this locality. Various types of mechanical excavators were first tried in the gulch proper by the Bixby syndicate, composed

of Boston capitalists, but proved unsuccessful. The first of these was the Lidgerwood cableway system, installed at German bar in 1896 and discarded in 1900. In 1898 the Hayward orange-peel or claim-shell system was tried, but this also proved unsuccessful and was abandoned. From 1899 to 1906 the dredging was carried on by various types of steam dredges. Dredges Nos. 1 and 2, then known as sluice boat dredges, were constructed in 1899 and 1901 respectively. They were operated by steam, and continued in service until 1906, when they were dismantled and replaced by new electric dredges, which are still being operated by the Conrey company.

No. 1, new dredge, was put in operation May 1, 1908, and the new No. 2 about June 1, 1908. In the construction of Nos. 1 and 2 the material in the old No. 1 was entirely discarded, and only a very small portion of the material in No. 2 could be used in the building of the new dredge.

The hull of No. 1 dredge is 96 feet long, of No. 2 dredge 106 feet long, each 44 feet wide and 9 feet deep. The lower deck extends beyond the hull proper and is 50 feet wide. Boats 1 and 2 are of the stacker and spud type.

Dredges Nos. 1 and 2, while much smaller in construction, are practically the same as dredge No. 4. No. 1 is equipped with 60 $7\frac{1}{2}$ cubic foot buckets, close connected on a 69-foot ladder, while No. 2 is equipped with 72 $7\frac{1}{2}$ cubic foot, close connected buckets on an 85-foot ladder, the material being dumped from the buckets into a hopper from which it passes through a revolving screen $35\frac{1}{2}$ feet long, 6 feet in diameter at one end and $4\frac{1}{2}$ feet at the other, the screen having $\frac{3}{8}$ and $\frac{1}{2}$ -inch perforations, through which the finer materials carrying most of the gold passes to pans and tables, where the gold is caught with quicksilver and held in the riffles. The oversize from the screen passes to a belt conveyor which carries it up the stacker, thence discharging it at the rear of the boat. Electrically driven pumps are used to supply the water for sluicing and screening.

No. 3 was the first electric dredge put in operation, and was really the first successful dredge built by the company. This dredge, which is the second largest of the four in use at Ruby, differs materially from the other dredges in mechanical detail only. It is known as the flume type, is the largest of its kind in the world, and was specially designed by company engineers. Its hull is 130 feet long by 48 feet wide. The boat has the mooring-line system of anchorage. The digging ladder has a length of 116 feet, carrying 96 9 cubic feet buckets, with a capacity of 125,000 cubic yards a month. The bucket line is operated by a special 150 horsepower electric motor, the speed of the buckets being 8 feet per minute. The dredge is swung from side to side by a 20-horsepower electric motor, directly connected with a winch. A 30-horsepower motor, connected with a massive winch, serves to move the dredge under its mooring lines. The revolving screen is 18 feet long by 61 inches in diameter. The oversize from the screen is forced by water pressure out at the end, thence through rock chutes into the pond. The screen is revolving by a 30-horsepower motor. The necessary water for the screen

and sluicing is pumped by three electrically driven pumps which lift 12,500 gallons per minute, giving a terrific pressure. The material passes from the upper sluiceway to a 135-foot tail-flume 66 inches wide, lined with angle-iron riffles, discharging the tailings evenly on the worked over area. Below the tail-flume are two under-current flumes, each 50 feet long, 12 inches wide, discharging upon a plate $5\frac{1}{2}$ feet square, having $\frac{1}{4}$ -inch perforations through which the material passes to a riffled table below. The boat is equipped with a heating system. This boat has been working continuously since 1906.

No. 4 dredge is practically the same as Nos. 1 and 2, of the stacker and spud type, but is much larger in construction. It was built at a cost of \$270,000, and is working 11,000 cubic yards of earth each and every 24-hour day. It is 150 feet long, 58 feet wide, and 13 feet deep. The lower deck extends five feet on each side, making the floor of the deck 160 feet long by 68 feet wide. In the construction of this hull, 659,000 feet of timber was consumed. To realize the immense power of this gold ship and the great quantity of gravel it handles, one must see it in operation.

Hillocks of rocks and gravel cover a vast area which a few years ago was level meadow land covered with green willow and an occasional cottonwood tree. In fact, 700 acres is strewn with piles of gravel taken from below the surface of the water by the four dredges since they began operations. The dredge is digging up the virgin gravel and soil with 80 huge buckets on an endless chain, each bucket, weighing 5200 pounds, and containing 17 cubic feet of earth and rocks.

On board the boat, under the guidance of Mr. George H. Edmunds, the general manager of the Conrey Placer Mining company, one may see tons and tons of auriferous gravel worked over in quest of the precious metal. First a visitor is taken to the head of the bucket line, where the contents of the 80 buckets on the endless chain are dumped. Each of these buckets is bringing its loads from the bottom of the pond, 56 feet below the surface of the water upon which the boat floats, the gravel being dropped into a large revolving screen 48 feet long by 9 feet 9 inches in diameter, the principle being the same as on dredges Nos. 1 and 2. As the screen revolves, a stream of water is turned on the gravel which strikes it with terrific force, the smaller particles being forced through the perforation $\frac{1}{2}$ inch by $\frac{3}{4}$ inch in diameter, where they are washed over the riffles in which there is quicksilver which catches and retains the gold. The coarse material passes out the lower end of the screen on a large, endless stacker belt 48 inches wide and 372 feet long, by which it is carried over the stacker, to be dropped as tailings. This dredge carried 25 feet of bank ahead of the boat, making a total of 78 feet in the face of the dredge.

All this machinery is in control of the pilot or winchman. By levers, he has complete control of every part of the boat and can move it to any position by means of long cables attached to the shore.

Electric power is used for everything. Separate motors are attached to each part of individual machine. As an illustration, 550

horsepower is required to operate the buckets, and a total of 1310 horsepower is required on this boat alone. This one dredge is digging on an average of 330,000 cubic yards every month. To put it in acreage, the dredge digs over the surface 66 feet in depth, often cutting from one to four feet into bed-rock of from three to four acres a month.

The combined capacity of all four dredges is 635,000 cubic yards of earth a month.

The company is now working in ground carrying from 8 to 17 cents to the cubic yard. The cost of operating is not to exceed five cents a cubic yard, leaving a handsome profit to the stockholders. All four boats work eight-hour shifts through the winter as well as the summer, each boat being housed and heated. No time is lost except for repairs and a 40-hour vacation for the Fourth of July and the celebration of Christmas.

The riffles on each boat are cleaned up once a week, and the gold retorted at the company's laboratory at Ruby. The gold bricks are shipped to the United States mint at Denver. The value of each brick is usually about \$8,000 and runs sometimes to \$12,000. There is seldom one less than \$7,000.

Strictly speaking, there are really two separate corporations, although commonly known as the Conrey Placer Mining company. The land to the west of the road running from Alder to Ruby is owned by the Poor Farm Placer Mining company, whose holdings consist of several hundred acres of proved dredging ground. The land to the east of the road is owned by the Conrey Placer Mining company, which owns and operates dredges Nos. 1 and 2. The latter company also operates dredges No. 3 under contract for the other corporation. It also owns the machine shop, which employs ten men steadily, although twenty-five may be engaged at times when a serious breakdown occurs. The buildings, electric sub-station and other property and equipment used in the management of the two corporations are owned by the Conrey Placer Mining company. This company includes in its holdings several hundred acres of dredging ground which extends within a couple of miles of Virginia City. Sufficient ground is owned and controlled by the company to keep all four dredges at work for at least five more years.

An average of 85 men, including office help, machinists, blacksmiths and electricians, is carried on the pay roll. Electric power is furnished by the Montana Power company and received at the company's sub-station at Ruby over a transmission power line from the Madison river plant, about 27 miles northeast of the workings.

George H. Edmunds is the general manager and Hennen Jennings, of Washington, D. C., is the consulting engineer. Much speculation has prevailed for several years regarding the possibility of dredging the lower Ruby valley below where the Conrey operations are in progress. Some five years ago the Oroville California Dredging company prospected considerable ground at various points through the valley, and rumors were current that options were secured on certain tracts of land. Whether these options were secured in the interest

of the California company, the Conrey company or some other concern, is not generally known, and the result of the prospecting carried on by this company is still a matter of speculation.

From time to time rumors are heard of dredging operations to be undertaken, but aside from the work actually going on under the Conrey company, nothing in the dredging line has been attempted in this district.

Some of the ranchers living in the gold belt have prospected portions of their land to a depth of 8 or 10 feet, with very flattering results. In one case the assay certificate received showed a value of 15 cents to the cubic yard at 8 feet from the surface. If this should prove to be a fair test, it is possible that the lower streams of the Ruby valley possess sufficient value to dredge with a fair average of success. The cost of working a cubic yard of gravel with one of the late electric dredges is said to be 5 cents. This would leave a handsome profit on 10 to 15 cents gravel. The average of the gravel worked by the Conrey company is not generally known, but it is freely admitted by the official of the company that plenty of gravel has been worked with success, carrying gold averaging 8 cents per cubic yard. Prospective possibilities along this line, however, are yet problematical, although it is not improbable that future developments will result in other dredging work being done in this locality.

GEMS AND SEMI-PRECIOUS STONES

GEMS AND SEMI-PRECIOUS STONES

The mining of gems and precious and semi-precious stones, while comparatively unimportant in comparison with the production of gold, silver, zinc or copper, is nevertheless a considerable industry in the state. Montana's gem resources, if thoroughly understood, would doubtless be a source of surprise to many people who have given but little attention to this subject.

Nearly all the known precious and semi-precious gems have been found in some quantity in the United States. Not all of these, however, have been found in Montana, although a systematic search may yet reveal undiscovered treasures in gems in the indigenous rocks, clay and gravel of the Treasure State. A variety of the gem species has been found in many localities, particularly in the central and western counties, including an occasional diamond picked up at rare intervals and in widely separated localities. Some have doubted the authenticity of the discovery of this rare stone, but undoubtedly a few diamonds have been found in this State.

Professor George F. Kunz, the gem expert of the Tiffany company, and probably the greatest authority on gems in America, in his book published in 1890, "Gems and Precious Stones in North America," speaks of an octahedral diamond said to have been taken from a placer claim called Nelson Hill, near Blackfoot, Deer Lodge county. This stone was panned out by a Chinaman, who handed it to Edward Mason, one of the owners of the claim. It was not regarded as of any value, and was left lying about the cabin. When in Helena some time later, Mr. Mason showed the stone to a jeweler, who offered to purchase it. Suspecting the stone to be of greater value than he had imagined it, he declined the offer. Subsequently, while in New York, he submitted the stone to a diamond broker, who pronounced it a true diamond. Several years later, Professor Kunz says, the stone was still retained by Mr. Mason in its natural state. The finding of an occasional diamond has been reported at later periods, but this Department is unable to vouch for the authenticity of these reports.

It is of particular interest to note, however, that Montana, due to her production of fine sapphires, and because she has mined a truly precious gem which bears favorable comparison with the oriental product, ranks highest among the gem-producing states of the Union.

The sapphire is undoubtedly the most beautiful mineral product found in Montana, with the possible exception of the diamond. Few precious stones have such a wide range of colors. In all the localities where it is found, every tint of the rainbow is represented. Some have various shades of green, yellow, pink and red; others are colorless, bluish green, straw yellow, topaz yellow; while many, particularly

in the Yogo district, are the deep blue and the highly prized cornflower blue, fully as handsome and valuable as the oriental product. Occasionally one is found with nearly the true emerald-green tint, and now and then a specimen compares favorably with the oriental ruby in color and brilliancy.

Sapphires belong to the corundum group, and rank next to diamonds in hardness. Corundum is nearly pure alumina, and is found in nearly all colors. The transparent varieties are the most valuable of gems. Ruby, sapphire, oriental amethyst, oriental emerald and oriental topaz are names given to the transparent red, blue, purple, green and yellow varieties of the mineral. A one-carat cut blue Yogo sapphire is worth from thirty to eighty dollars. Other colors found in Montana are much cheaper. Sapphires are 9 in hardness, compared with the diamond, which is 10. Sapphires can be cut to 1/16 of a carat. Diamond dust is used for cutting, and tripoli for polishing. The sapphire's specific gravity is about 4, and the diamond's 3½. It therefore does not take as large a sapphire to make a one-carat stone as does the diamond.

London, Paris and New York are the principal sapphire markets of the world. All of the Yogo output is sent to London, and the cutting is done mostly in Switzerland, as it is cheaper to send the stones there and pay duty than to have the work done in America. Many of the original stones are flat and shallow, and the average loss in cutting is considerable. There are some four or five lapidaries in Montana, all of whom cut sapphires, and many of the stones found in placer workings are cut here or sent to eastern cities; but the prices charged for cutting and polishing are double and sometimes threefold the cost of having the work done in Holland, Belgium, Switzerland or Germany. The engraving of sapphires is again becoming fashionable, some excellent work being done by jewelers in spite of the hardness of the stones.

Montana sapphires rarely exceed four or five carats in size, the majority being under three carats. Occasionally, however, sapphires of eight or ten carats are found. The largest sapphire found at the Yogo mines weighed about nineteen carats. A few large crystals have been found on the Missoula river bar, and stones of eight or ten carats are frequently found in the placer deposits of Granite county. Many of the sapphires obtained, however, are classed as culls and are in good demand for watch jewels and bearings, for which they are particularly adapted.

Many counties in Montana have produced sapphires. They are found both in placer deposits and in the rock matrix. The best known places where sapphires are found in auriferous sand and gravel are those along the Missouri river, some twenty miles east and north of Helena, along Dry Cottonwood creek, Deer Lodge county, and on the waters of Rock creek, Granite county.

In the Judith river region in Fergus county, the matrix containing the stones is an intrusive igneous rock, from which the sapphires are separated by washing. The percentage of stones of gem quality is larger from this locality than in those taken from the placer deposits

Only a small proportion of the latter is fit for gems, on account of their being variclored.

The discovery of sapphires in Montana dates, according to Professor Kunz, who has made a study of the subject, back to May 5, 1865, when they were found on the Missouri river near Helena by a prospector named Ed Collins, in searching for gold. Mr. Collins sent specimens to New York and Amsterdam in search of a market. At that time, from one to three pounds of sapphires could be picked up in a day on any of the Missouri river bars north and east of Helena.

A large English company obtained control of much land in this vicinity in 1891 and commenced active mining for sapphires on an extensive scale. Miles of ditches and flumes were constructed, and water brought to the deposits for sluicing and hydraulicking. Americans reorganized the company in 1897, but litigation followed and little work has been accomplished since that time.

The most important and productive sapphire deposits in Montana are those of the Yogo district, owned and controlled by an English syndicate which is said to have a practical monopoly of sapphire mining in the world. Indeed, the bulk of the world's output of sapphires now comes from the waters of Yogo creek in central Montana.

Formerly two large companies operated for sapphires in this locality, the Yogo American Sapphire company and the New Mine Sapphire syndicate, a British corporation, but in August 1914, the British company purchased all the claim and property of the American concern for \$80,000, thus securing complete control of the greatest source of sapphire production in the world. The mining property of the syndicate has an area of, roughly, 1250 acres. Pagel ranch, with an acreage of 560 acres, is also the property of the syndicate and is operated in connection with the mine, furnishing food supplies for the miners.

It is not definitely known whether this British syndicate has any connection with or control over the sapphire placer deposits in Burma, Siam and Ceylon, although it is generally believed that the same interest controls both sources of production. At any rate, the same method of manipulation is being pursued in the production and control of the sapphire market as that carried out by the Diamond Trust syndicate of South Africa, by curtailing the production in times of commercial depression. The price of sapphires, as of diamonds, is not allowed to fluctuate very widely.

With the declaration of war in Europe in August 1914, the diamond syndicate closed the mines in South Africa, and in a few months a rough diamond could scarcely be purchased for love or money. Simultaneously with the closing of the diamond mines in South Africa, operations ceased entirely in the Yogo district. The small stock of sapphires still held by retail merchants was soon exhausted, and thus, while the tendency in price was to decline, there was practically no supply to be had, and the price remained the same. As soon as the stock held by retailers was disposed of, the sapphire syndicate resumed selling again, being careful not to

glut the market. Scarcely any mining has been done in the Yogo district since August 1914. Such is the plan of the diamond trust, and apparently of the sapphire syndicate.

The Yogo sapphire mines are on the eastern slope of the mountains in Fergus county. The nearest railway point is Hobson, twenty-five miles distant. The Judith river rises in this section, and for much of the distance to the mines from Hobson the road passes through one of the most fertile and productive agricultural sections of the state. The Yogo sapphire, like those in other localities of the state, were discovered by men who were placer-mining for gold. They were discarded for a time, not being recognized as sapphires, but at the suggestion of a stranger, samples were finally sent to an expert, who pronounced them high-grade gems.

The dike from which the stones are taken was discovered in 1896, and is apparently inexhaustible. The New Mine sapphire dike has been opened for over six miles, the sapphire lead averaging about eight feet thick. The two shafts are about three miles apart, and the actual mining is practically the same as the ordinary quartz mining, being operated through a shaft from different drifts and levels.

Formerly the sapphires were mined in open pits, the dike rock near the surface being more decomposed than at a greater depth, and from this portion the sapphires were easily separated by washing. Below a depth of twenty feet the rock is harder and is broken by blasting, although in many places the rock is so soft that the hole is bored with augurs. Shafts have been sunk, and at the new mine ore is being taken from a Depth of 300 feet.

At the American mine the matrix is treated in a concentrating mill, being first run over iron grizzlies with spaces three inches apart. From the grizzlies the material passes to large perforated iron cylinders revolving in water. The action of the water and the shaking given the clay-like substance force it apart. The sapphires being released fall through the perforations along with other hard and heavy substances. After being subjected to shaking screens containing perforations which grade the material into different sizes, the largest and hardest pieces are piled on a dump and exposed to the elements, where the pile slowly slacks and disintegrates. When sufficiently soft, it is carried back and remilled. After passing through the screening process, the finer material is conducted to a jig to be concentrated. The final clean-up is accomplished here. The larger sizes suitable for cutting are picked up by hand. The smaller sizes, chiefly culls, are recovered by an electrostatic machine, and are sold for watch jewels and other mechanical purposes. The method of recovering the stones at the new mine is a combination of hydraulicking and placer mining.

Practically no machinery is used in this process, the ore being piled in dumps about the shaft on inclined wooden floors, where it is left exposed for months to the snow, rain, heat and cold, until it finally disintegrates. Much of the ore slacks in a few months, while some of the harder rock takes years of exposure, with frequent wettings, to disintegrate. When sufficiently weathered, it is either shovelled or washed by hydraulic pressure into sluices in which riffles are placed.

The sapphire being heavier than the matrix is caught in these riffles and cleaned up several times a day by turning off the water and lifting the racks. The operation is practically the same as sluicing for placer gold.

Water for the purpose is brought from Yogo creek through a flume fifteen miles long, which was constructed at a cost of \$40,000. This flume cannot be used during winter weather, the locality being 5000 feet in altitude, and much snow and cold weather are encountered during the winter months. All the sluicing is therefore done in the summer, mining underground being conducted during the entire winter as well as summer.

The Missouri river sapphire beds are some twenty miles north and east of Helena, and extend for twenty miles from Canyon Ferry down the river. No systematic mining for sapphires has been carried on in this locality for years. From 1891 to 1897 active operations were in progress, miles of flumes having been constructed which have since been allowed to fall to pieces.

Formerly the sapphires were picked up on bars and gravel beds extending into the river, where they were exceedingly plentiful, but practically all of this ground is now covered by water backed up by the Hauser lake dam. Many sapphire-bearing beds yet remain, however, in the form of terraces, which extend from a few feet to 200 feet or more above the river. Much of this property is now owned by the estate of Mr. A. N. Spratt, formerly of Helena.

A representative of the United States Geological Survey who visited this region in 1910 mentions the following places as the principal sapphire-bearing deposits in this locality:

Eldorado Bar, 9 to 12 miles below Canyon Ferry; Gruell Bar, 4 miles below Canyon Ferry on the northeast side of the river; French Bar, 2 miles below Canyon Ferry; and Spokane Bar, 5 miles below Canyon Ferry on the southwest side of the river. Among other deposits are Emerald Bar, near Canyon Ferry; Dana Bar, near the mouth of Frickly Pear creek, across the river from Eldorado Bar; and American Bar, about 6 miles below the mouth of Prickly Pear creek on the east side of the river. Among other places are Magpie gulch and Cheyenne Bar, near Canyon Ferry, and Metropolitan Bar, across the river from Spokane Bar, also Ruby Bar, about 6 miles below Eldorado Bar. No sapphires have been found along the river above Emerald Bar, and no large quantities have been found below American Bar.

Along the Dry Cottonwood creek, a tributary of the Deer Lodge river which rises on the Continental divide about 15 miles north and west of Butte, is another locality where sapphires are found in auriferous gravel. There are a number of important holdings on the creek, the most productive being on the upper four miles of the south fork, where the principal developments have taken place, although sapphires have been found for several miles along Dry Cottonwood creek proper. The existence of sapphires in this locality has been known for over 35 years. About ten years ago, systematic mining was undertaken, and as gold is found associated with sapphires in all deposits along the

creek, the operations have been a combination of mining for sapphires and gold. In fact, sufficient gold has been obtained in most instances to pay for the expense of operating.

The method of recovering sapphires in this district is by dredging, hydraulicking and other forms of placer mining. Much of the work is accomplished during the spring months, not sufficient water being available, especially on the upper part of the creek, in the late summer and after the winter fall of snow has melted in the mountains. The gravel beds are quite extensive, varying in width and thickness. Dredging has been carried on successfully at an altitude above 6,000 feet and within two miles of the Continental divide, which is approximately 7,000 feet above sea level.

Mr. West Dodd, of Des Moines, Iowa, successor to the Variegated Sapphire company, was until a few years ago operating a dredge on the upper portion of the creek down to the Grand Pre flat, and the Consolidated Gold and Sapphire Mining company for several years worked its holdings with a dredge lower down the creek. Both dredges are of the bucket type and are operated by steam, cordwood being used as fuel.

The dredge of the Consolidated Gold and Sapphire Mining company has a belt-conveying stacker, and is provided with suitable sluices and riffles for retaining both sapphires and gold. When the dredge is working, 800 cubic yards of earth are washed each day, although it is claimed that the rated washing capacity is 3,000 cubic yards.

The dredge of the Dodd concern has a capacity of 750 cubic yards in 24 hours. This dredge is equipped with a dynamo and electric lights. The gravel is washed in a revolving screen, everything over an inch in diameter being carried out into the pond. The smaller material is then run over riffles, mercury being used to catch the gold. The concentrates are treated for sapphires in sieves and other special devices.

The United States Geological Survey describes the predominant colors of the Dry Cottonwood sapphires as deep and light aquamarine and pale yellowish green. Other colors are clear and smoky blue, light and dark topaz yellow, straw yellow, yellowish green, like olivene, light and deep pink; while some stones are nearly ruby red, lilac and pale amethyst, and others are colorless.

Extensive sapphire beds are located also in the Rock Creek region, about 15 miles southwest of Philipsburg, in Granite county. The sapphire deposits in this locality are similar to those of the Missouri River and the Dry Cottonwood creek district, being found in beds of gravel in the gulches. They extend up the hillside for a considerable distance. Numerous claims were staked by prospectors years ago in the locality where the discovery was made, and considerable excitement prevailed some twenty years ago, but subsided after a short period. Much of the ground was later purchased by the American Gem Mining syndicate, a Saint Louis concern, which also owns the Bi-Metallic Silver mine at Philipsburg.

This company now owns over 1,000 acres, containing practically all the known sapphire ground in the vicinity. Systematic mining by this company has been in progress during the summer months for a number of years, and in 1912 extensive improvements were completed which

have largely increased the company's annual output of sapphires. Among other improvements, a flume 10 miles long was constructed, costing approximately \$40,000. Water is brought from the North Fork of Rock creek through this flume, and distributed through the various gulches for hydraulic mining. The principal gulches are Meyers and Anaconda, situated about a mile apart. Other small gulches are being washed over an area of several square miles. The sapphires found on the hillsides are smaller than those recovered in the gulches, but average about the same in color and quality.

Mining is accomplished by hydraulicking. The first part of the sluice is over bed rock, the coarser material being forked out, and the finer material then washed into board slices equipped with riffles. The riffles are removed and cleaned up each day. Some gold is recovered in the sluices, but not in sufficient quantity to pay for the mining. The concentrates are cleaned on a jig operated by a water wheel, and the concentrates for the jig are oven-dried and shipped for picking.

Many beautiful pebbles, including quartz, garnet and corundum, are found in the concentrates with other minerals. Green in various shades is the prevailing color of the sapphires of the Rock creek region. Blue, yellow, purple, pink and red are also found, a small percentage of the production being cut and sold for gems.

The sapphires are all sent to the company's office in Saint Louis, and the greater part are then shipped to Switzerland for use as watch jewels and for other mechanical purposes. Owing to their hardness, they are in good demand for bearings.

In 1913 the company employed about 30 people, but with the European war the market declined and very little mining has been done since.

Moss agates of a fine quality are found in large quantities in Montana, and are important from a commercial standpoint. Many of the agates obtained are cut for jewelry and are valuable for watch charms, stick pins and other ornaments. Mr. Douglas B. Sterrett, of the United States Geological Survey, describes the moss agates and the mocha stones of the Yellowstone river and tributaries, in a pamphlet issued by the survey in 1911, from which we quote liberally as follows:

"Moss agate and mocha stone of fine quality occur in Montana. The agates have been found chiefly on the west side of the Yellowstone river from the Dakota line up to and (reported) above Yellowstone Park. They range back from the river over many miles of country, where they are gathered by the ranchers and sheepherders. The agates are distributed over the surface of the ground, in the gravel along creek and river beds, and over some of the grass-covered buttes. The ones collected all lie at the surface or only partly buried. They occur in pebbles, cobbles, and rough masses ranging from the size of a hazel-nut to pieces weighing 12 pounds. Chemical tests made on a number of the black and reddish brown spots broken from rough specimens showed the presence of both manganese and iron, confirming the generally accepted idea as to the nature of the dendrites in mocha stones.

"The rough specimens of agate examined consist of fragments and a chipped pebble more than two inches thick. The rounded form of the pebble may be due in part to the shape of the cavity in which the agate was deposited and in part to attrition during transportation along with the associated gravels. The interior of the pebble and the fragments of agate consist of translucent gray to blue-gray chalcedony. Some of it shows a banded structure, and some an even texture. Black and brown dendritic spots are scattered irregularly through the agate, and in places there are seams and irregular patches of the same color. Reddish brown, red and bright red dendrites, banding and other markings also occur in the agates. The texture of the dendrites ranges from cloudy patches to branching tufts and fibres as delicate as those found in the finest moss and ferns.

"By taking advantage of the arrangement of the dark seams and dendritic patches, patterns are obtained that resembles moss, sea growths, ferns, rushes, trees, and even landscapes with water and islands. The cut gems consist of stones suitable for use in brooches, stick pins, watch fobs, belt buckles, et cetera. The markings were present in different shades of red, reddish brown, light brown, and dark brown to black.

"Three specimens cut into fob gems displayed very attractive markings. One of the fobs measuring 15 by 18 millimeters contained numerous black spots 2 to 3 millimeters in diameter, and one large dendrite, 8 millimeters across, resembling a sunflower. Another fob stone 27 by 31 millimeters gave the effect of a small landscape, such as an overgrown garden with untrimmed shrubbery, hawthorn or other bushes. The shrubbery was represented by black dendrites, 5 to 9 millimeters high.

"The best specimen was an elongated stone cut 'en cabochon,' 73 millimeters long, 20 millimeters wide and 5 millimeters thick, portraying many wooded islands scattered through a lake or other body of water—'Thousand Islands,' as suggested by several persons who examined the stone. This stone is valued at \$250. A slight banding of the agate heightened the resemblance to water and also added a slight cloud effect to the landscape. The fine quality of this gem was best brought out by viewing in transmitted light, though its great beauty was evident in reflected light. The scene was similar and very perfect, viewed from either side of the stone. This gem would make a unique and beautiful brooch or would grace the collection of any museum in which it might be placed.

"The gems cut from the Montana moss agate or mocha stone command good prices, bringing anywhere from \$1 to \$200 or \$300 apiece. Some of the smaller stones, suitable for stick pins, if the mossy or fernlike patterns are particularly delicate and beautiful, bring \$25 apiece. Large quantities of agate are cut which yield less attractive gems, and stones as fine as those described above are rare. The value of such gems as have been described lies in the fact that they can not be duplicated."

Remarkable specimens of black tourmaline have been found in considerable quantity in Jefferson county. Associated with this mineral

are excellent amethyst, topaz and quartz crystals, although transparent specimens of tourmaline suitable for gems have not been unearthed, as far as the Department has been able to ascertain. Rose quartz of beautiful color and quality has been found in numerous localities, and some specimens are suitable for gems and ornamental purposes. Beautiful specimens of amethyst are found in many of the mountain counties, the crystals being generally of fairly dark purple color at the points, turning into white at the base. Amethyst mountain in Yellowstone Park, situated close to the Montana and Wyoming line, is one of the wonders of that region, but specimens from this locality are not allowed to be disturbed.

Garnets are found in many gravel deposits, and are frequently obtained in placer mining for gold. Beautiful specimens of almandine, called Montana rubies, are washed out of the auriferous gravel in Madison county by the huge dredges digging for gold. Many of these have a reddish purple tint and are especially prized as gems.

It is to be regretted that the Department can not furnish a complete list of all gem minerals found in the state. We would add to those already mentioned, however, yellow and smoky topaz, found in Park, Madison and other counties. Many of these when cut make beautiful specimens and are highly prized by lovers of gems. Moonstones suitable for specimens and cutting are picked up in many places, and some of those found in placer deposits when cut "en cabochon" are quite lustrous and make handsome exhibits when shown with other gem specimens. Rhodonite from Butte, Montana, found principally in the Alice mine, has been used for gems for many years, and was mentioned by Professor Kung in 1884. A report of the United States Geological Survey in 1910, on the production of gems and precious stones, mentions a specimen of rhodonite from Butte, received from the Western Gem company of Los Angeles, which has cut a quantity of this mineral from Butte. The specimen was described as consisting of granular rhodonite, with a delicate rose pink color in which were patches of gray quartz, black oxide of manganese and a few small grains of pyrite. Under the microscope the specimen was seen to consist of elongated rhombic and columnar crystals of rhodonite, arranged in radiating groups with quartz, a little pyrite and stains of dark brown oxide of manganese.

Other mineral products of possible gem value are Iceland spar, the finding of which is reported from Sweet Grass county, and various varieties of jasper, including a dark reddish, mahogany-colored specimen resembling the grain of wood, found in Dawson county.

Blue azurite, combined with green malachite, and designated azurmalachite by Professor Kunz, is found in the copper mines of Butte, Silver Bow county, and in the mines of Radersburg, Broadwater county. Attractive gems are cut from this combination of minerals which are particularly suitable for rings, hat pins, scarf pins and cuff buttons.

A large deposit of obsidian is said to be located in Gallatin county near Spanish creek, some 20 miles south of the village of Salesville. Quantities of this mineral in various transparent colors

have been found which are suitable for gem purposes. Much of the obsidian is reported to be badly fractured, but pieces of sufficient size and clearness can be obtained, it is said, for the cutting of good-size gems.

It has been found quite impossible to obtain definite figures showing the annual production of the different varieties of gem minerals found in Montana. Many of the gems and semi-precious stones are found by individuals, some of them engaged in other mining enterprises, and no record is kept of these small finds, which are disposed of in different ways and to different people.

A fairly good estimate of the Montana sapphire production since 1895 is herewith given, which is taken from the reports of the United States Geological Survey. These figures include the annual production of sapphires in other parts of the United States, but as the country's production comes chiefly from Montana, the table appended is substantially correct for the state.

Production of Sapphires Since 1895.

Year	Amount	Year	Amount
1895.....	\$ 9,057	1906.....	\$ 39,100
1896.....	10,000	1907.....	229,800
1897.....	25,000	1908.....	58,397
1898.....	55,000	1909.....	44,998
1899.....	68,000	1910.....	52,983
1900.....	75,000	1911.....	215,313
1901.....	90,000	1912.....	195,505
1902.....	115,000	1913.....	238,635
1903.....	100,000	1914.....	60,032
1904.....	100,000	1915.....	88,196
1905.....	125,000	1916.....	99,170
		1917.....	54,099

UNDEVELOPED INDUSTRIES

UNDEVELOPED INDUSTRIES

SHOE INDUSTRY POSSIBLE.

Scattered indiscriminately throughout the State, there are innumerable business and commercial organizations whose chief function is to promote the welfare of their respective communities by judicious advertising of such industrial opportunities and advantages as each community may possess. Through these organizations, much interesting and valuable information has been accumulated, showing the nature and extent of the vast undeveloped resources of the State.

It is interesting to note in this connection, that one commercial organization, after thoroughly investigating the subject, professes to see a golden opportunity in the establishment of a shoe manufacturing industry in this State. It is pointed out that Montana has the natural and material elements that need only organizing to make it a manufacturing footwear center. Practically all the raw material comes from the west. Montana hides are shipped east, where they are tanned and made into shoes, and again shipped west and sold to thousands of consumers.

It is claimed, contrary to the general opinion, that wages are not the controlling factor in establishing the shoe industry in the east and middle west. While it is admitted that wages are somewhat higher in Montana than in other portions of the country, for the reason that opportunities are greater, it is argued that wages are rapidly approaching a basis of equality all over the United States. The difference in wages, it is said, would not cause the shoe business to center at any particular point. If this were the case, Cincinnati would make all the shoes, for the reason that Cincinnati shoe factories before the war worked ten hours at a lower wage than in any other important shoe district in the United States.

Massachusetts collectively is the great shoe district of the United States. Wages in Massachusetts are, or were before the war, ten to twenty per cent higher than in Cincinnati. The shoe trade in Massachusetts is the most highly unionized in the country. For instance, it is said that the shoe factories in Lynn have to deal with eight separate and distinct unions.

Labor in Massachusetts factories is limited by law to nine hours a day, and nearly all factories observe the Saturday half holiday, making a fifty-hour week, against a forty-eight hour week generally observed for men and women in the industries of Montana.

Female help is the important consideration in the shoe industry, because male help can be attracted anywhere. Prior to the war, apprentice girls in Massachusetts factories started at three dollars a week. For regular workers on the cheaper details of the shoes, the pay at that time averaged from \$6.00 to \$7.50 a week. This is really

a second apprenticeship, as the real women operatives earned from \$7.50 to \$15 a week. A girl who could not reach the latter class within eight or nine months was considered too slow for factory use. The pay of the men ranged from \$12 to \$25 a week. Practically all of the work is on a piece basis, so that the rate of pay depended mostly upon the individual operative.

There is probably nothing in the above figures that makes the manufacture of shoes in Montana impossible. The question of freight rates is an important item to be considered. The expense of shipping the raw hides east, with an additional charge for shipping the finished product to the western consumer, could be eliminated by the Montana manufacturer. This saving, added to salaries, would probably equalize the difference in Montana wages, as compared to eastern shoe manufacturing centers.

It is often claimed that any part of the United States can sell in any other part of the United States when strong enough men organize the industry. In proof of this claim, one is reminded that most of the big successful industries of this country have been built around the capacity of a single man, and a capable management is the important and controlling feature in building up an industry of this kind. With a strong man in charge, given sufficient financial and moral encouragement, there seems no good reason why a shoe manufacturing plant of moderate size should not be built at some point in the State.

MANUFACTURING POTATO PRODUCTS.

In describing and enumerating the many possibilities which the State affords for undeveloped industrial opportunities, the advantages offered for the establishment of institutions for the manufacture of potato products should not be overlooked.

Investigation discloses that the soil and climate of Montana are particularly adapted to the growing of potatoes, making the State as a whole an ideal place for the location and development of industrial enterprises of the above-mentioned character. It is a well established fact that potatoes can be grown successfully without irrigation in all localities of the State. While the application of water will undoubtedly increase the yield per acre, it is not necessary in the production of a fair yield and an average crop. That potatoes grown on non-irrigated land are of a quality superior to those grown with irrigation, is generally recognized and worthy of special note.

The official government report for ten years shows an average yield of 141 bushels per acre of Montana land. The percentage of production to the acre in Montana is usually larger than in most of the states, and in many cases it is nearly double that of some of the largest potato-producing states. Montana has no rival in the average cost of production. Our average cost per acre in producing potatoes does not exceed \$25, while that of other states runs up in many cases to \$100.

With conditions as they exist at the present time, we are growing only a limited quantity of potatoes, generally just about enough for our home consumption and use. During exceptional seasons, when there has been a crop failure in the middle west, and the demand and price are good, many potatoes are shipped from Montana to other states. With ordinary conditions, when there is no demand for shipment, a good many potatoes are never dug and are left to rot in the ground. This is due to the long distance to a market, with resultant heavy freight charges, making it difficult and unprofitable to compete with shipments from other states.

With the establishment of potato flakes, starch and glucose factories, the production would undoubtedly be stimulated to such an extent that the raising of potatoes would soon result in one of our largest and most important commercial crops.

In 1913, it was announced that Montana had been selected as a starting point for the manufacture of potato flakes. The new industry was expected to be built in Missoula and would consume the entire Bitter Root crop. The United States government, which had been experimenting with the problem, was attracted by the glowing accounts sent out. Subsequently the promoters abandoned the project, and the factory has never been built. Prior to the war, there were over 400 potato flake factories operating in Germany, preparing and preserving this indispensable article of food.

The process of manufacture is both simple and inexpensive. The potatoes are first washed thoroughly, then peeled and boiled under pressure. They are dried against hot revolving rollers which reduce the moisture, and cut into flakes which will keep indefinitely in any climate.

The manufacture of starch and glucose, especially the former, is intimately associated with the growth and development of potato raising in the United States. In many states the starch business is an important industry, starting with the potato-digging season and closing when the available crop has been manufactured into starch. Space will not permit of a description of the process of making starch, which, while differing somewhat in method, is essentially the same in all factories. It might be well to point out that potatoes in different states vary as to the amount of starch, and that the percentage varies from year to year. The price of starch also varies greatly, and, in some states, is an important factor governing the price of potatoes. Ordinarily it is said to take about 250 bushels of potatoes to make a ton of starch, the average being about 8 pounds to the bushel.

The establishment of any or all of these industries in different localities would mean an assured market for a big increased acreage of potatoes throughout the State. Even the small, defective, unmerchantable culled potatoes could be used in starch and glucose factories, preventing an otherwise total loss. In addition, and incidental to the business, is the getting out of cooperage stock and the making of casks for holding the starch, which could be done here, giving further employment to quite a number of people at all seasons of the year.

All of these advantages, together with the fact that potato starch and glucose are recognized to be much higher in quality and value than

the same products from corn, would indicate the possibility of establishing and developing an industry that would distribute hundreds of thousands of dollars annually to the people of this State.

PULP AND PAPER INDUSTRY.

Among the many opportunities for industrial development in the State, no field more inviting is open for exploitation than in the possibilities afforded for the manufacture of pulp and paper. In the successful establishment and maintenance of an industry of this character, cheap power and a plentiful supply of suitable timber are not only of primary importance, but essential. Both of these elements, Montana possesses in inexhaustible quantities. The attractive features of such an investment, and a thorough discussion of the feasibility of an undertaking of this nature for western Montana, were thoroughly discussed in the first biennial report of this Department, published four years ago. After a careful analysis of the subject, it was the Department's firm belief that the industry would of necessity move westward and eventually locate in this State. Further investigation has confirmed the opinion that this condition is inevitable at no distant date. An eastern syndicate has very recently contemplated the building of a big wood pulp mill in Flathead county.

In the early history and development of the industry, poplar wood was used almost exclusively in the manufacture of paper and pulp. It was for some time the favorite pulp wood because it was considered more suitable for that purpose than other kinds of timber. This wood grew rapidly and was easily reproduced. With ordinary care exercised in preserving the young growth of trees, it was not anticipated that there would ever be a scarcity of poplar wood. In the meantime, reckless and unscrupulous methods of lumbering were making great inroads into the forests of the east and middle west. Valuable timber lands were entirely stripped of merchantable timber, and forest fires continued the work of destruction, destroying everything but the soil and rocks.

When other timber came into general use for pulp and paper-making, the danger line had already been reached. With enormous growing demands for paper, huge pulp and paper plants were built. The annual supply of timber necessary to meet the requirements of these huge plants far exceeded the annual growth of the eastern forest area. Notwithstanding that forestry preservation has been undertaken, and regulations established to preserve the young trees of a certain size, irreparable damage and destruction have long since been accomplished, and a scarcity of available timber for pulp and paper is already being felt. While there is various other timber, such as fir, pine and hemlock, used to a considerable extent in pulp and paper making, it is generally conceded that spruce is superior for pulp to any other wood known.

Careful observation and study by expert foresters prove conclusively that all timber now used in pulp and paper manufacture is of

comparatively slow growth. A high authority in Maine not long ago stated that it requires 150 years for a spruce tree to reach maturity. Taking these facts into consideration, it will be seen that years of strict forest regulation and preservation must intervene before the denuded forest lands of the eastern states can materially assist in supplying the growing demands for timber for wood pulp. Possibly there is no imminent danger at present that our forests will become exhausted, but at any rate an object lesson is afforded us in the destruction of the forests in other states.

Recent experiments by the government have demonstrated that new methods of treatment have been devised which, according to tests made, show that eleven new woods give promise of being suitable for the production of news print paper, while a number of others will produce Manila paper and box boards. Most of these woods are confined to the west, a number of them being grown abundantly in Montana. Paper made from the new woods was given a practical try-out by two large newspapers, with satisfactory results. A recent government bulletin contained 70 samples of paper manufactured by different processes, chiefly from wood heretofore practically unused for paper making. These tests, undertaken at Wausau and Madison, Wisconsin, indicate that much of the western wood, particularly numerous kinds found in Montana, heretofore thought to be useless for the ground wood industry, is available for the manufacture of various kinds of paper.

Western Montana is full of spruce lying near its waterways, easily accessible to pure, clear, fresh water and unlimited natural power. In this region are quantities of hemlock, pine and fir, used extensively in the manufacture of pulp and paper. Dense stands of lodgepole pine, believed to have excellent prospects as a pulp wood, are found in abundance in many localities.

It has been authoritatively stated that one-third of the cost of manufacturing wood pulp and paper consists in the cost of power. It is interesting to note in this connection that, before the war, our importations of these articles were coming largely from Sweden and Canada—two countries that have been recently developing their water power. Both countries are nearly doubling their importations of pulp and paper into the United States annually.

Forestry and water power are two of Montana's greatest natural resources. If they are essential in the manufacture of pulp and paper, there is substantial reason for believing that eventually the industry will locate in our State. With this desirable accomplishment realized, the virgin spruce and other timber of little importance to the lumber industry of Montana at the present time will become a source of great wealth to the State. Through the utilization of our water power and forests, the products of western Montana will displace the importation of pulp and paper from foreign countries.

CONDENSED MILK FACTORIES.

Nature has destined that Montana become a great dairy state. Admirably adapted as the entire region is for the manufacture of dairy products, it is only in comparatively recent years that butter and cheese factories have been established on a safe and substantial basis. As far as the industry relates to butter factories, investigation discloses that remarkable progress has been accomplished. Cheese factories, wherever established, have also proved successful, furnishing abundant proof that these twin industries are but in their infancy in our State.

There is, however, another branch of the dairy industry, as yet undeveloped, which should take a foremost place among the manufacturing industries of the State. Reference is made to the condensed milk business, which has become an important and prosperous industry in several states.

The first milk canning factory was built in the United States in 1857, and was known as Borden's Condensed Milk company. It was under the personal supervision of the inventor, Gail Borden. Although the business of canning milk was carried on to some extent prior to the Civil war, it was not fully established on a systematic and business-like basis until that period. The popularity of condensed milk as an article of food has steadily increased from year to year until it has become a staple product in all countries of the globe. It is particularly adapted for use by hunting, fishing and camping parties, on board ships at sea, in mining and logging camps and wherever fresh milk is impossible to procure. In fact, it is frequently preferred by many people in place of fresh milk. Being sterilized, it is wholesome and clean and can be kept in air-tight cans for years.

About the only ingredients used in making the finished product, are milk and granulated sugar.

In view of the abnormal importations of dairy products into the State, it is perhaps a little early to forecast the establishment of condensed milk factories in Montana at the present time. Investigation made by this Department during the year 1914 revealed the fact that 3,500,000 pounds of butter, worth \$1,085,000, were shipped into the State during a twelve months' period. 4,000,000 pounds of cheese, worth \$800,000; and 300 cars of condensed milk, estimated to be worth \$2.100 per car, totalling \$630,000.00, were received from nearby states during the same period of time.

Advancement in the dairy industry, however, can come rapidly. Since the above figures were compiled, improvements in dairy herds have been remarkable. The importance of the dairy industry is gaining ground every year. Judging from the rapid development and desirable results being achieved, in addition to the many natural advantages which the State possesses for the production of milk and cream, the Department feels that opportunities will be presented for the manufacture of condensed milk, which should become a lucrative and paying business in several localities of the State. A few years should suffice to increase the number and quality of farm cows sufficiently to create a

surplus of dairy products for exportation. Then in addition to numberless creameries and cheese factories, another branch of the dairy industry will be developed, giving additional profits and prosperity to those who patronize the same.

MARBLE, ONYX AND BUILDING STONE DEPOSITS.

Although comparatively undeveloped, few states of the Union are provided with such an abundance and variety of building stone as this State possesses in available and almost inexhaustible quantities. It is no exaggeration to say that the granite, sandstone, limestone and marble deposits of Montana are sufficient to supply the entire needs of the United States for many centuries to come.

Granite of excellent quality for building, monumental and ornamental purposes, in a variety of colors, is found in numerous counties and in widely separated localities of the State. Much of the granite is easily accessible, and in recent years is being used to some extent in the construction of public buildings in some of the larger and more important cities. The new wings of the state capitol were built of granite, quarried near Clancy, in Jefferson county, and is found to be very durable and satisfactory. Sandstone was used in the construction of the original building, and was brought from the Columbus quarry, in Stillwater county. The sandstone from this quarry has been used for several years in building operations throughout the State.

A few years ago, a granite quarry was opened near the new town of Square Butte, in Chouteau county. This stone is said to rival much of that produced in the New England states, and is easily worked. The quarry consists of a ledge standing about 150 feet above the surface, and contains a granite of light gray color, similar to the Quincy, Massachusetts, granite, and also a dark gray stone similar to the Vermont granite.

A granite quarry is also being worked in a small way at intervals in Park county. Unsurpassed deposits of granite can doubtless be developed in many places, and the quantity is practically inexhaustible.

That both marble and onyx of a superior quality are found in several localities of Montana, has long been generally known. Near Manhattan, in Gallatin county, is an excellent deposit of onyx, of rare and variegated color. Development work was begun on this quarry a few years ago, and a large tonnage of the crude product was exposed. It is said that this onyx stands an excellent commercial test, and that huge blocks of it can be mined without a seam, with very little expense. Large and excellent deposits of both marble and onyx were also discovered several years ago at Electric, in Park county, but owing to a lack of sufficient capital for the development of the enterprise, the quarry has never been worked for commercial purposes.

Marble in great variety and color has been found in many localities, but as yet remains undeveloped. In 1915, prospectors discovered,

some three miles from Livingston, a large deposit of what is claimed to be marble, of a peculiar and remarkable color. While only surface development work has been done, the marble taken from near the surface was remarkably smooth, and few faults were encountered. The color of the marble being a rich mahogany, the owners of the claim have named it mahogany marble. Samples which were sent to experts take a high polish and were pronounced first-class in every respect. It is anticipated that the stone, regardless of whether it is marble or not, will be valuable in the building industry, as it is believed it will polish into one of the most beautiful stones for wainscoting, pillars, tiling and other interior and exterior ornamental finishing for modern structures.

With such excellent deposits of marble, onyx and granite in close proximity to railroad transportation, the mining, cutting, dressing and polishing of the crude product will doubtless develop into an important industry at no far distant date.

GLASS MANUFACTURE.

The discovery of a large flow of natural gas at Havre, Hill county; Baker, Fallon county, and near Glendive, Dawson county, with subsequent reports that gas had been found in commercial quantities in other sections of Montana, would appear to afford an opportunity for the establishment and development of new and varied manufacturing plants and industrial enterprises in Montana.

That natural gas is particularly adapted to the manufacture of glass, has been fully demonstrated in other states. Where intense heat and a plentiful supply of cheap fuel are necessary, it is greatly preferable to solid fuel, and has a distinct advantage in the fact that it can be increased and decreased as the occasion warrants, and is more readily subject to control.

Practical experiments have demonstrated that gas will give a higher temperature in a given time than coal, and its available heat supply will be greater. Observations on the use of both coal and gas for the same length of time show that from 10,000 to 12,000 cubic feet of gas is equivalent to one ton of coal used under favorable conditions by a good fireman.

As the big well at Havre has a daily capacity of 15,000,000 cubic feet of gas, there is a sufficient quantity on hand, in addition to what is being used for heating and cooking purposes, to supply cheap heat for a number of large manufacturers. Already there are numerous inquiries from eastern glass companies regarding the quality and quantity of gas available.

Other wells are now being drilled, which ought to furnish a reserve supply of gas, and with suitable sand deposits found in the vicinity of Havre, conditions would appear exceptionally favorable for the establishment of a glass industry in Montana at an early date. People interested in glass propositions should investigate conditions for the manufacture of glass at Havre.

FLAX FIBER INDUSTRY.

The Northern Flax Fiber company's plant, located at Conrad, in Teton county, is a promising young industry, furnishing a practical illustration of what can be accomplished in a short time in the way of diversified industrial development through the utilization of the State's undeveloped natural resources.

Through the far-seeing sagacity of Mr. George Pearson, this industry became an assured fact in 1914. The approximate first cost of the enterprise was \$40,000, although this amount has been considerably exceeded by improvements made during the past few years. Being a practical bacteriologist, with a wide experience in the linen industry of Great Britain, Mr. Pearson was induced a few years ago to come to this country to investigate the possibilities of growing flax for fiber, suitable for the manufacture of linen goods.

After considerable experimenting with the flax grown in different states, he came to the conclusion that the flax straw grown in Montana contained a fiber of superior quality to any produced elsewhere in the United States. The actual results have surpassed his fondest expectation. Tests made in the spinning mills of Leeds, England, in the presence of the American consul, showed that the Montana fiber stood a strain of 150 pounds, while the fiber which they were using in the factory broke at 125 pounds. This test, however, was made with a good quality of flax straw grown on irrigated land adjacent to Conrad from seed furnished by the company. Straw of this quality, Mr. Pearson has demonstrated, produces fiber suitable for making any and every class of goods. While Mr. Pearson considers the fiber from ordinary Montana flax suitable for twines and threads, he makes no claim of its being good for fine linen goods.

In the promotion and development of this new enterprise, Mr. Pearson was badly handicapped for want of financial backing and support. Especially during the first few years, were many obstacles encountered, of a nature difficult to overcome. The public, always skeptical of all new ventures of a similar character, did not give it the encouragement which it deserved. Many prominent people predicted that it was impracticable and could not succeed. For this reason, difficulty was experienced in securing contracts with the farmers to grow a sufficient quantity of flax to insure a season's run. After many discouragements, and after the company had been reorganized several times, a number of Montana capitalists have undertaken to back the institution with sufficient funds to give it a fair trial. The financial support and moral backing of these enterprising citizens have made the enterprise a huge success.

With the addition of a number of new mills which the company proposes to build in other localities, the growing of flax and the manufacturing of straw into fiber should develop into an important industry in the State. Heretofore there has been no market for the flax straw, and it has been going to waste. Thousands of tons have been burned annually to get it out of the way. The company at Conrad has been buying the flax—straw and all—just as it comes from the field at \$15 per ton. Irrigation is necessary in growing a suitable quality

of flax. Seed is furnished by the company at \$2 per bushel. It is claimed that from two to four tons of straw can be grown on an acre of land, which should give the farmer from \$30 to \$60 an acre for an ordinary crop of flax. At these prices, flax growing is probably more profitable than the average crop of wheat. Notwithstanding this, there is some dissatisfaction with the price paid, and an effort is being made to have the company raise the contract price for the 1919 crop.

It is now proposed to introduce machines for pulling the flax, instead of cutting it, so as to save all the straw, including the roots. It is also proposed to manufacture the seed boon into a stock food and add the latest process of expellers, to make the linseed oil and meal from the seeds.

The process and system used by the Northern Flax Fiber company is extremely simple and economical, and the factory is therefore able to produce a large output at a small cost. Mr. Pearson is said to possess a secret process of retting the straw in three days, which ordinarily takes three weeks. Apparently, the process of extraction is not injurious to the fiber, as the quality produced has proven exceptionally good and strong. This is an excellent point in favor of Mr. Pearson's method, as most of the quick retting processes heretofore used had the objection of making use of chemicals which injured the fiber.

In the Conrad mill, threshing is accomplished at the rate of seven or eight tons per day, with the help of two men. Attached to the thresher, is a binder which ties the flax straw into neat bundles for subsequent treatment in the retting tanks. Tow yarn and line yarn are both produced, and can be sold in the British market, straight from the brakes, at from \$250 to \$300 per ton.

Apparently, the industry has reached a practical stage, and should, with proper management and financial support, result in a permanent success.

CHILD LABOR LAW

CHILD LABOR LAW

Montana legislation for the protection of children in dangerous and unhealthful occupations, and for the preservation of their morals, is in many respects the best law of its kind to be found in the United States. Providential was the policy which dictated this advanced legislation at such an opportune and comparatively early period in this young and growing commonwealth. More or less fragmentary legislation, restricting the hours and conditions under which children were allowed to work, culminated in 1907 in the present sensible and comprehensive child labor law, which for the past twelve years has apparently given general satisfaction.

The primary intent of the Montana law is not so much to prevent children from working, as to see that those who do work are employed under proper conditions and have a full realization of their equal rights with other children.

The law has many valuable features, such as making the parent or guardian liable for its violation, and prohibiting the employment of children under sixteen years of age in the operation of steam, electric, hydraulic or compressed air railroads, freight or passenger elevators, telephone, telegraph or other messenger service, or in any occupation which may be in any way detrimental to the morals of a child. While prohibiting children under sixteen years of age from working in any mine, mill, smelter, factory or workshop, the law does not extend to agricultural employment and many other occupations where machinery is not in use. The act apparently does not apply to the selling of newspapers, unless it could be proven conclusively that the child's health or morality was affected by his associates or the general situation.

Some question might also arise as to whether a child under sixteen years of age could be prevented, under the law, from appearing upon the stage of a reputable theater, or otherwise, in vaudeville, or in any play, whether of a high moral character or not, and when the child is employed by a traveling troupe, and is not a permanent resident of the State. While shows and theaters are not specifically mentioned as prohibited occupations, the law undoubtedly confers wide discretion and authority, and certainly authorizes this Department to act for the protection of children in any employment not specially enumerated, which is known to be dangerous and unhealthy, or which may in any way be detrimental to the morals of a child.

The law further provides that this Department shall compile and preserve, for the official records of the ages of children in the State, a full and complete list of the names, ages, dates of birth and sex of all children, and the names of their parents or guardians. This data is secured annually from the various county school superintendents, as the statutes otherwise provide, and is used for the purpose of

enforcing the act, for giving information, on request, to truant officers and to the bureau of child and animal protection, and as an official record in issuing age certificates for the protection of employers with whom any child may seek employment.

While not fully sufficient and ample in itself to regulate all occupations and conditions, if taken in conjunction with the state compulsory school law, it is fully adequate to cover practically every situation. The Department of Labor and Industry and the bureau of child and animal protection are jointly empowered with the enforcement of this act, a violation of which constitutes a misdemeanor, punishable upon conviction, with a fine of not less than twenty-five dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than six months, or by both such fine and imprisonment.

COST OF LIVING

COST OF LIVING

This Department, in 1914, published in its first biennial report, the result of an investigation of prices of food commodities in 60 of the principal cities and towns of Montana. Several tables comprised a record of food prices. The year 1900 was taken as a basis, and variations in prices of the same articles in the years 1910 and 1914 were shown.

In 1916, and again during the current biennial period, similar investigations were conducted. Quotations were secured on January 1, in the open market, on the same quality and brand of goods.

The Fourteenth Legislative Assembly, having reduced the yearly appropriation for office and traveling expenses, the Department was obliged to omit from the second biennial report, all tables dealing with the prices of food commodities in 1916.

The cost of printing has so increased, as a result of the war, that it is necessary again to economize in publishing this third biennial report. Accordingly, quotations secured in 1916 and on January 1, 1918, in the sixty cities and towns, are omitted. However, several tables are appended hereto. These show prices, wholesale and retail, of staple articles of food for the past 18 years.

Prices, with variations and percentages of increase and decrease, are given for the years 1900, 1910, 1914, 1916 and November 1, 1918. All articles consumed by the average household are not included, but the trend of food prices in Montana during the years under consideration is clearly shown.

According to statistics compiled by the Bureau of Labor at Washington, the cost of living in the United States was 58 per cent higher in 1912 than 1898. The average for 1912 was found to be eight per cent higher than in 1911, and 22 per cent higher than in 1907. From 1905 to 1912, it was shown that the cost of living had advanced one-third. It was also shown that the wholesale prices of commodities in the United States were higher than at any time for thirty years prior to 1912. During the year 1912, wholesale prices advanced sharply, the most important feature being the marked increase in farm products, food, fuel, lighting, metal and implements. Fuel and lighting showed the greatest increase over 1911, having advanced 9.4 per cent. Lumber and building material comprised the only group showing a decrease, the decline being 1.5 per cent.

With the breaking out of the European war, there was a marked increase in the price of all food commodities, Montana prices being affected by the general increase throughout the United States. Retail prices were slightly higher when the war started, at the end of July, 1914, than they had been in the preceding months. Prices continued to advance in August and September, but there was a sharp decline during the early part of 1914, which continued throughout the year 1915. The decline in prices was particularly noticeable in the spring

of 1915, market quotations in Montana showing a decided decrease in the list of commodities in the accompanying tables. Meats, however, show the largest decrease in prices during that period.

During 1916, prices rose rapidly and continued to advance by leaps and bounds during 1917 and 1918. Between the outbreak of the war in July, 1914, and June, 1918, retail food prices, according to the United States Bureau of Labor statistics, advanced 59 per cent. Between June, 1914, and June, 1918, the increase was 64 per cent. Since June, 1918, the rise in prices of all commodities has been considerable.

The articles listed in the accompanying tables are those used in the average Montana household. It can hardly be claimed that the percentages shown reflect accurately the increase in the cost of living for the average wage-earning family, as food is only one of many important expenditures necessary in maintaining a household. The United States Bureau of Labor Statistics, after a careful investigation in 1901, found that the expenditures for food required about 43 per cent of the total; for shelter, about 18 per cent; for clothing, nearly 13 per cent; for fuel and light, nearly 6 per cent, and for sundries, a little over 20 per cent. While food is the most important item in the family budget, to get an accurate indication of changes in the cost of living, it is necessary to consider other expenditures, such as clothing, shelter, fuel, light and sundries.

In the past four years, commodity prices in the United States, taken as a whole, rose, it is claimed, about 100 per cent. Rents, which take about a fifth of the average wage-earner's income, have probably not increased in Montana to any great extent during the war. This is due largely to the exceptional demand for mechanics and other laborers in the ship yards and munition plants, which has caused thousands of workmen and their friends to move to the coast cities. With this exception, other expenditures have doubtless increased in the same proportion as in other localities in the United States.

It is obvious that the tabulations by this Department and by the United States Bureau of Labor cannot be applied to all communities, as there is a wide difference in the increased cost of living among individual families and communities. Nevertheless, the tabulations may be taken as representative of the changes in the cost of living during the past 18 years, including the period of the war.

TABLE NO. 2—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1918, AS COMPARED WITH THE YEARS 1910, 1914 AND 1916.

COMMODITY	Price 1900	Price 1910	Per Cent of Increase 1910 over 1900	Per Cent of Decrease 1910 over 1900	Price 1910	Price 1914	Per Cent of Increase 1914 over 1910	Per Cent of Decrease 1914 over 1910
Baking powder, alum, 1-lb. can	\$.25	\$.25			\$.25	\$.25		
Cans, Lady Washington, lb.	.05	.03 $\frac{1}{4}$	25		.03 $\frac{1}{4}$	.08 $\frac{1}{2}$	32	
Crab oysters, 8 oz. can	.20	.20			.20	.20		
Raspberries, standard, 2 $\frac{1}{2}$ lbs	.25	.25			.25	.25		
Raspberries, standard, 2 $\frac{1}{2}$ lb. can	.25	.25			.25	.25		
Strawberries, standard, 2 $\frac{1}{2}$ lb. can	.15	.15			.16 $\frac{2}{3}$	.15		10
Strawberries, extras, lb. can	.35	.35			.35	.35		
Baked beans, No. 1, per can	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.12 $\frac{1}{2}$	.15	20	
Green peas, 2-lb. can	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.12 $\frac{1}{2}$	.15	20	
Unned corn, Iowa standard	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.12 $\frac{1}{2}$	.12 $\frac{1}{2}$		
Unned tomatoes, Utah, 2 $\frac{1}{2}$ lb.	.1 $\frac{1}{2}$	.12 $\frac{1}{2}$			.12 $\frac{1}{2}$	.12 $\frac{1}{2}$		
Coffee White House, per lb.	.40	.40			.40	.45	12 $\frac{1}{2}$	
Condensed milk, tall size, can	.10	.10			.10	.15		
Dried apples, choice, per lb.	.15	.15			.15	.20		
Dried apricots, choice, per lb.	.17 $\frac{1}{2}$	.20	14		.20	.12 $\frac{1}{2}$		
Dried currants, Vostitza, lb.	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.12 $\frac{1}{2}$	.12 $\frac{1}{2}$		16 $\frac{2}{3}$
Dried peaches, choice, per lb.	.15	.15			.15	.15		
Dried pears, choice, per lb.	.15	.15			.15	.20	18	
Dried plums, pitted, per lb.	.12 $\frac{1}{2}$	.17	36		.17	.15		
Dried prunes, 60-70, per lb.	.10	.12 $\frac{1}{2}$	25		.12 $\frac{1}{2}$	.12 $\frac{1}{2}$	20	
Dried raisins, seeded, 16-oz.	.15	.12 $\frac{1}{2}$		16 $\frac{2}{3}$	.12 $\frac{1}{2}$	.10		
Shraham crackers, bulk, lb.	.10	.10			.10	.10		
Soda crackers, bulk, per lb.	.10	.10			.10	.25		
Atsup, Blue Label, med. size	.25	.25			.25	.45		3 $\frac{1}{2}$
Ont. hard wheat flour, 98 lbs.	3.75	4.40	17 $\frac{1}{2}$		4.40	4.25		10
Atmeal, pure, 9-lb sack	.40	.50	25		.50	.45		
Ornmeal, 9-lb. sack	.25	.35	40		.35	.33		
Old oats, per small package	.35	.35			.35	.35		
Uckwheat flour, 9-lb. sack	.50	.60	20		.60	.65	8 $\frac{1}{3}$	
Shraham flour, 9-lb. sack	.40	.40			.40	.35		12 $\frac{1}{2}$
Honey, comb, per lb.	.15	.16 $\frac{2}{3}$	11 $\frac{1}{2}$		.16 $\frac{2}{3}$	.15		10
Rice, Japan, per lb.	.08 $\frac{1}{3}$	.07 $\frac{1}{2}$		25	.06 $\frac{1}{4}$	.08 $\frac{1}{3}$	33 $\frac{1}{3}$	
Baking soda, per lb.	.08 $\frac{1}{3}$	.08 $\frac{1}{3}$			.08 $\frac{1}{3}$	.08 $\frac{1}{3}$		
Table salt, Utah, 10-lb. sack	.20	.20			.20	.20		
Wider vinegar, per gallon	.60	.50		16 $\frac{2}{3}$	.50	.50		
Wrup, Towle's Log Cabin, qt.	.40	.40			.40	.50	25	
Baking molasses per qt. can	.25	.25			.25	.20		20
Beet sugar, gran., lbs. for \$1	14 lbs.	13 lbs.	7		13 lbs.	14 lbs.		7 $\frac{1}{2}$
Ter. M. & M., 1-lb. package	.35	.35			.35	.35		
Butter, fresh creamerv. lb.	.35	.40	15		.40	.45	12 $\frac{1}{2}$	
Eggs, April storage, per doz.	.35	.40	15		.40	.40		
Cheese, American cream, lb.	.25	.25			.25	.25		
Potatoes, per 100 lbs.	1.75	1.50		14 $\frac{1}{2}$	1.50	1.50		

TABLE NO. 2 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1918, AS COMPARED WITH THE YEARS 1910, 1914 AND 1916.

COMMODITY	Price 1916	Per Cent of Increase 1916 over 1914	Per Cent of Decrease 1916 over 1914	Per Cent of Increase 1916 over 1900	Per Cent of Decrease 1916 over 1900	Price Nov. 1, 1918	Per Cent of Increase Nov. 1, 1918, over 1910	Per Cent of Increase Nov. 1, 1918, over 1914	Per Cent of Increase Nov. 1, 1918, over 1916
Baking powder, alum, 1-lb. can	\$.25					\$.30	25	25	
Beans, Lady Washington, lb.	.06 $\frac{3}{4}$		17			.17	188	104	11
Cove oysters, 8 oz. can.	.16 $\frac{2}{3}$		16 $\frac{2}{3}$	35	16 $\frac{2}{3}$	.33 $\frac{1}{2}$	66 $\frac{2}{3}$	66 $\frac{2}{3}$	
Blackberries, standard, 2 $\frac{1}{4}$ lbs	.20		20		20	.25			
Cherries, standard, 2 $\frac{1}{4}$ lb. can	.25					.25			
Plums, standard, 2 $\frac{1}{4}$ lb. can.	.20	33 $\frac{1}{3}$		33 $\frac{1}{3}$		.25			
Raspberries, extras, 2 lb. can.	.33 $\frac{1}{3}$		7 $\frac{1}{4}$		7 $\frac{1}{4}$	.45	50	68 $\frac{2}{3}$	
Baked beans, No. 1, per can.	.10		33 $\frac{1}{3}$		20	.18	28 $\frac{1}{2}$	28 $\frac{1}{2}$	
June peas 2-lb. can.	.10		33 $\frac{1}{3}$		20	.18	40 $\frac{1}{2}$	20	
Canned corn, Iowa standard.	.12 $\frac{1}{2}$					.13	50	68 $\frac{2}{3}$	
Canned tomatoes, Utah, 2 $\frac{1}{2}$ lb.	.12 $\frac{1}{2}$					.20	60	60	
Coffee, White House, per lb.	.45			12 $\frac{1}{2}$		.23	84	84	
Condensed milk, tall size, can	.10					.45	12 $\frac{1}{2}$		
Dried apples, choice, per lb.	.12 $\frac{1}{2}$		16 $\frac{2}{3}$		16 $\frac{2}{3}$	.20	50	50	
Dried apricots, choice, per lb.	.15		25		14	.25	33 $\frac{1}{3}$	33 $\frac{1}{3}$	
Dried currants, Vostitza lb.	.20	60		60		.40	25	25	
Dried peaches, choice, per lb.	.12 $\frac{1}{2}$				16 $\frac{2}{3}$	.16	220	220	10
Dried pears, choice, per lb.	.18	20		20		.20	6 $\frac{2}{3}$	28	2
Dried plums, pitted, per lb.	.16 $\frac{2}{3}$		16 $\frac{2}{3}$	33 $\frac{1}{3}$		.20	33 $\frac{1}{3}$	33 $\frac{1}{3}$	1
Dried prunes, 60-70, per lb.	.12 $\frac{1}{2}$		16 $\frac{2}{3}$	25					
Dried raisins, seeded, 16-oz.	.12 $\frac{1}{2}$				16 $\frac{2}{3}$	.15	20	20	
Graham crackers, bulk, lb.	.12	20		20		.25	150	150	10
Soda crackers, bulk, per lb.	.08 $\frac{1}{2}$		15		15	.25	150	150	19
Catsup, Blue Label, med. size	.25					.35	40	40	4
Mont. hard wheat flour, 98 lbs.	3.50	17 $\frac{1}{2}$		5		6.15	39 $\frac{3}{4}$	44 $\frac{3}{4}$	7
Oatmeal, pure, 9-lb sack	.40	9				.92	85	104 $\frac{1}{2}$	13
Cornmeal, 9-lb. sack	.40	14		60		.80	128 $\frac{1}{2}$	128 $\frac{1}{2}$	100
Roll'd oats, per small package	.35					.35			
Buckwheat flour, 9-lb. sack	.60	7 $\frac{1}{2}$	20						
Graham flour, 9-lb. sack	.40	14				.75	87 $\frac{1}{2}$	114 $\frac{1}{3}$	8
Honey, comb, per lb.	.20	33 $\frac{1}{3}$		33 $\frac{1}{3}$					
Rice, Japan, per lb.	.06 $\frac{1}{4}$	23		23		.14	122 $\frac{1}{4}$	68	12
Baking soda, per lb.	.08 $\frac{1}{3}$					.08 $\frac{1}{3}$			
Table salt, Utah, 10-lb. sack	.15	25		25		.25	25	25	6
Cider vinegar, per gallon	.50			16 $\frac{2}{3}$		.68	36	36	36
Syrup, Towle's Log Cabin, qt.	.40	20				.60	50	20	5
Baking molasses, per qt. can.	.20			20		.25	25	25	25
Tea, M. & M., 1-lb. package	12 lbs.	14		14	10 $\frac{1}{2}$		36 $\frac{1}{2}$	47	26
Butter, fresh creamery, lb.	.50	42 $\frac{1}{2}$		42 $\frac{1}{2}$		.40	14 $\frac{1}{2}$	14 $\frac{1}{2}$	
Eggs, Apr 1 storage, per doz.	.40	9		14		.65	62 $\frac{1}{2}$	50	62
Cheese, American cream, lb.	.25			14		.60	50	50	50
Potatoes, per 100 lbs.	1.25	16 $\frac{2}{3}$			28 $\frac{1}{2}$	2.15	37 $\frac{1}{2}$	37 $\frac{1}{2}$	37
							43 $\frac{1}{3}$	43 $\frac{1}{3}$	72

TABLE NO. 3—COST OF LIVING.

RETAIL PRICES OF MEATS FOR THE YEAR 1918, AS COMPARED WITH THE YEARS 1910, 1914 AND 1916.

THIRD BIENNIAL REPORT

109

COMMODITY	Price 1900	Price 1910	Per Cent of Increase 1910 over 1900	Price 1910	Price 1914	Per Cent of Increase 1914 over 1910	Price 1916	Per Cent of Increase 1916 over 1914	Per Cent of Decrease 1916 over 1914	Per Cent of Increase 1916 over 1900	Price Nov. 1, 1918	Per Cent of Increase Nov. 1, 1918, over 1910	Per Cent of Increase Nov. 1, 1918, over 1914	Per Cent of Increase Nov. 1, 1918, over 1916
Porterhouse steak, per lb.	.20	.20		.20	.29	45	.23	6%		60	.50	150	63%	87½
Sirloin steak, per lb.	.18	.18		.18	.22	39	.22		12	22½	.40	122	60	81½
Round steak, per lb.	.15	.15		.15	.22	68%	.18		28	20	.40	126	69	92½
Rib Roast, per lb.	.12½	.15		.15	.22	48%	.18		33½	44%	.33	120	50	83½
Rib bo'l, per lb.	.10	.10	20	.10	.15	33%	.10		25	33½	.18	80	20	80
Shoulder steak, per lb.	.10	.10		.10	.20	100	.15		25	33½	.20	200	50	100
Ribs of beef, per lb.	.10½	.10		.10	.18	75	.15		6¼	20	.25	100	50	66%
Pot roast, per lb.	.10	.10		.10	.18	80	.15		31½	20	.25	150	43	108%
Pork roast, per lb.	.15	.15		.15	.23	46%	.18		40	20	.50	233	127	177
Salt pork, per lb.	.15	.15	20	.15	.20	33½	.18		18½	20	.45	200	125	275
Pork chops, per lb.	.15	.15	16%	.17½	.20	33½	.20		20	33½	.50	186	100	150
Hams, fancy, per lb.	.16	.17	6¼	.17	.22	35½	.20		32	20	.45	165	97	195
Leg of pork, per lb.	.15	.15		.15	.22	46%	.15		33	20	.50	233	100	233
Pigs' feet, per lb.	.05	.07	16%	.07	.10	42½	.10		95	50	.15	114	197	233
Fresh pork sausage, per lb.	.10	.10		.10	.20	100	.15		24	50	.55	205½	50	50
Bacon, 8-10, plain, per lb.	.15	.18	21%	.18	.25	39	.19		24	18½	.45	205½	190	190
Leg of lamb, per lb.	.15	.18	20	.18	.25	39	.19		24	26½	.45	150	80	136
Lamb chops, per lb.	.20	.20	33½	.20	.25	25	.19		24	86½	.50	170	100	178½
Leg of mutton, per lb.	.10	.10		.10	.18	44%	.19		12	80	.42	320	145	115%
Mutton chops, per lb.	.10	.10		.10	.17½	75	.18		3	59	.40	200	192	183
Shoulder of lamb, per lb.	.10	.10	25	.10	.15	50	.15			50	.35	180	145	183
Mutton stew, per lb.	.05	.06	20	.06	.10	66%	.10		3	36	.47	200	100	100
Loin of mutton, per lb.	.12½	.12½		.12½	.20	60	.17			60	.80	200	157	164
Salmon, fresh, per lb.	.15	.15	20	.15	.17½	16%	.20		20	28	.30	100	50	50
Halibut, fresh, per lb.	.15	.15	20	.15	.20	33½	.16		4½	42½	.40	132	73½	87½
Chicken, hens, per lb.	.15	.18	20	.18	.23	53	.22		12	22½	.40	100	60	81½
Chicken, spring, per lb.	.18	.20	11	.20	.25	25	.22		13%	66%				
Turkey, per lb.	.15	.25	66%	.25	.29	16	.25							

TABLE NO. 4—COST OF LIVING. WHOLESALE PRICES OF GROCERIES FOR THE YEAR 1910, AS COMPARED WITH THE YEAR 1900.

COMMODITY	Price 1900	Price 1910	Per Cent of Increase 1910 over 1900	Per Cent of Decrease 1910 over 1900
Baking powder, alum. 1-lb. can.....	\$.19	\$.19		
Beans, Lady Washington, per lb.....	.04	.05	25	
Cove oysters, 8-oz. can.....	.15	.16	6 $\frac{2}{3}$	
Blackberries, standard, 2 $\frac{1}{2}$ -lb. can.....	.12 $\frac{1}{2}$	.13 $\frac{1}{2}$	8 $\frac{1}{3}$	
Canned cherries, standard, 2 $\frac{1}{2}$ -lb. can.....	.15 $\frac{1}{2}$	.15	20	
Plums, standard, 2 $\frac{1}{2}$ -lb. can.....	.10	.11	10	
Raspberries, extras, 2-lb. can.....	.15	.20	33 $\frac{1}{3}$	
Baked beans, tomato sauce, No. 1, can.....	.07 $\frac{3}{4}$	.09	20	
June peas, 2-lb. can.....	.08	.08 $\frac{1}{2}$	6 $\frac{1}{4}$	
Canned corn, Iowa standard.....	.07 $\frac{1}{2}$	.08	6 $\frac{2}{3}$	
Canned tomatoes, Utah, 2 $\frac{1}{2}$ -lb.....	.10	.10		
Coffee, White House, per lb.....	.31	.32	3 $\frac{1}{5}$	
Condensed milk, tall size, per can.....	.08	.08 $\frac{1}{4}$	4	
Dried apples, choice, per lb.....	.08 $\frac{1}{2}$	.10 $\frac{1}{4}$	20	
Dried apricots, choice, per lb.....	.08	.15	100	
Dried currants, Vostitza, per lb.....	.10	.11	10	
Dried peaches, choice, per lb.....	.06 $\frac{1}{2}$	.13	100	
Dried pears, choice, per lb.....	.08 $\frac{3}{4}$	.12	37	
Dried plums, pitted, choice, per lb.....	.07 $\frac{1}{2}$	.12	60	
Dried prunes, 60-70, per lb.....	.05 $\frac{3}{4}$	.08 $\frac{1}{4}$	43 $\frac{1}{2}$	
Dried raisins, seeded, 16-oz. package.....	.09 $\frac{1}{4}$	.06 $\frac{1}{4}$		32 $\frac{1}{2}$
Graham crackers, bulk, per lb.....	.08	.08		
Soda crackers, bulk, per lb.....	.07 $\frac{1}{2}$	.08	6 $\frac{2}{3}$	
Catsup, Blue Label, medium size.....	.20	.17		15
Mont. hard wheat flour, 98-lb. sack.....	2.25	3.55	56	
Oatmeal, pure, 9-lb. sack.....	.30	.30		
Cornmeal, 9-lb. sack.....	.25	.26	4	
Roll-d oats, per small package.....	.10	.10		
Buckwheat flour, 9-lb. sack.....				
Graham flour, 9-lb. sack.....	.20	.30	50	
Honey, comb, per lb.....	.13	.14	7 $\frac{1}{4}$	
Rice, Japan, per lb.....	.04	.04		
Baking soda, per lb.....	.06 $\frac{1}{2}$	.06 $\frac{1}{2}$		
Table salt, Utah, per 10-lb. sack.....	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$		
Cider vinegar, per gallon.....	.23	.24	4 $\frac{1}{3}$	
Syrup, Towl's Log Cabin, per quart.....	.35	.38	8	
Baking molasses, per quart can.....	.25	.21		16
Beet sugar, granulated, per 100 lbs.....	5.75	5.95	3 $\frac{1}{2}$	
Tea, M. & M., 1-lb. package.....	.35 $\frac{1}{2}$	.36 $\frac{1}{2}$		
Butter, fresh creamery, per lb.....	.33 $\frac{1}{3}$	.33		
Eggs, Apr. storage, per dozen.....	.33 $\frac{1}{3}$	.31 $\frac{2}{3}$		5
Cheese, American cream, per lb.....	.15	.18 $\frac{1}{4}$	21 $\frac{1}{3}$	
Potatoes, per 100 lbs.....				

TABLE NO. 5—COST OF LIVINGS. RETAIL PRICES OF COAL IN DIFFERENT MONTANA CITIES, OCTOBER 1, 1918, AS COMPARED WITH MARCH 1, 1914, COMPILED FROM BLANK FORMS OF INQUIRY SENT TO RELIABLE SOURCES.

TOWN	Lump Coal Per Ton Delivered, March 1, 1914	Price Oct. 1, 1918	Per Cent Increase 1918 over 1914
Anaconda	\$ 7.75	\$ 9.35	20.64
Billings	6.00	7.90	31.66
Big Timber	6.00	7.85	30.83
Butte	6.75	8.93	32.74
Boulder	6.50	8.40	28.
Bozeman	6.50	8.50	30.73
Bridger	4.50	7.25	60.
Culbertson	† 3.00	* 10.32	244.
Chester	8.00	9.60	20.
Conrad	7.25	9.45	30.34
Chinook	† 4.50	* 10.10	124.44
Dillon	8.00	9.40	17.50
Deer Lodge	8.00	9.35	16.87
Forsyth	5.75	8.25	43.47
Glasgow	10.00	10.55	5.50
Glendive	7.00	9.20	31.42
Great Falls	7.00	9.14	30.57
Harlowton	5.50	7.30	32.72
Hamilton	8.00	9.85	23.12
Hardin	4.50	7.71	71.33
Helena	6.50	8.90	37.
Kalispell	8.00	10.35	29.37
Libby	7.75	10.75	38.71
Livingston	6.25	8.41	34.56
Lewistown	6.00	7.95	32.50
Manhattan	6.00	8.37	39.50
Miles City	6.50	8.91	37.08
Missoula	7.50	9.40	25.33
Philipsburg	8.00	9.10	13.75
†Polson	11.00	10.65	-----
Roundup	4.00	5.25	31.25
Three Forks	6.50	8.26	27.08
Thompson Falls	7.50	10.00	33.33
Townsend	6.00	8.55	42.50
Wibaux	6.50	8.50	30.77

†Lignite from local mine.

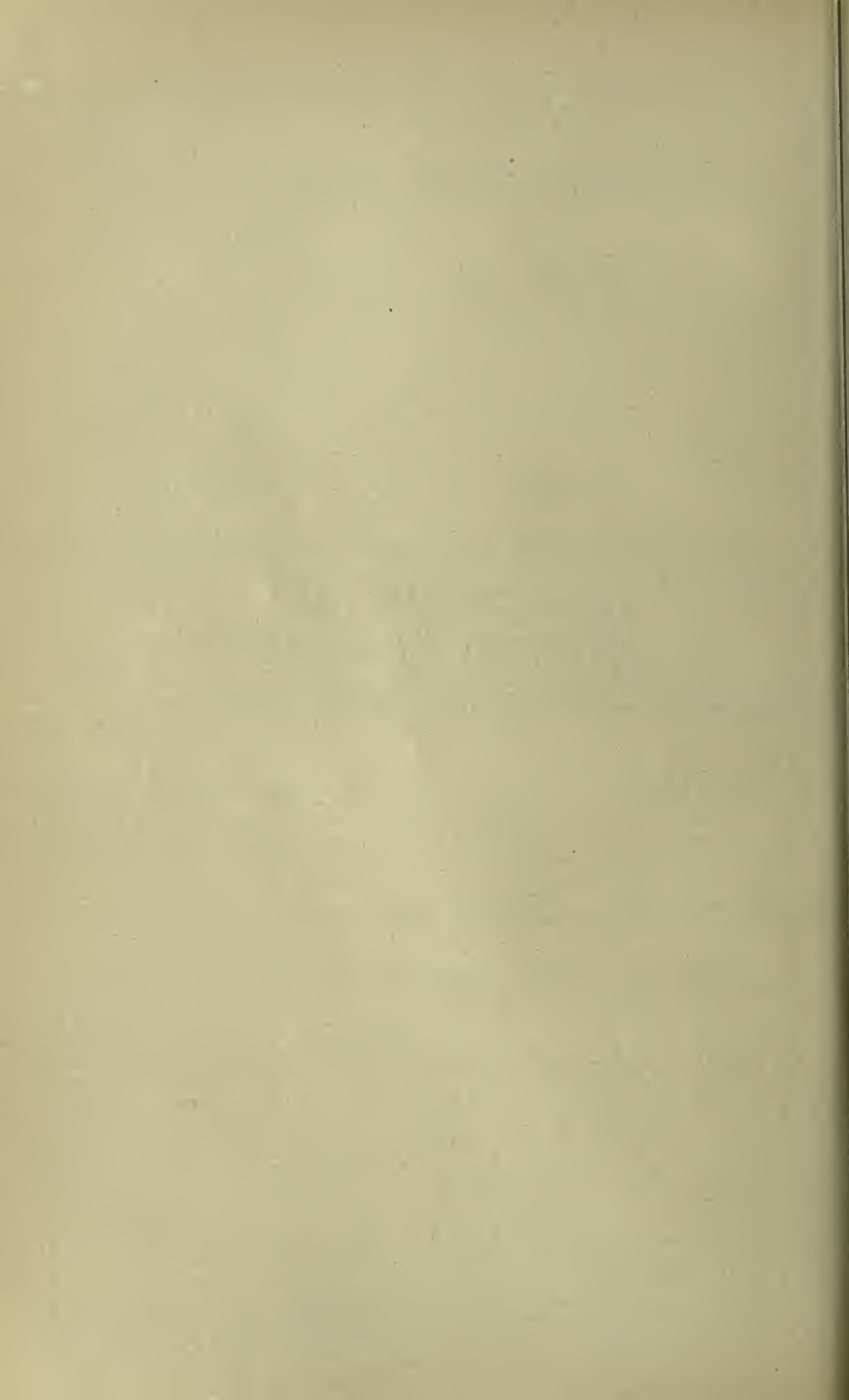
*Bituminous coal.

†Decrease 11.81 per cent.

TABLE NO. 5½—COST OF LIVING. WHOLESALE PRICES OF GROCERIES FOR YEAR 1918, AS COMPARED WITH THE YEARS 1910, 1914 AND 1916.

COMMODITY	Price 1910	Price 1914	Per Cent of Increase 1914 over 1910	Per Cent of Decrease 1914 over 1910	Price 1916	Per Cent of Increase 1916 over 1914	Per Cent of Decrease 1916 over 1914	Per Cent of Increase 1916 over 1900	Per Cent of Decrease 1916 over 1900	Price Nov. 1, 1918	Per Cent of Increase Nov. 1, 1918, over 1910	Per Cent of Increase Nov. 1, 1918, over 1914	Per Cent of Increase Nov. 1, 1918, over 1916
Baking powder, alum, 1-lb. can	\$.19	\$.18	5¼	5¼	18	3%	11%	63%	1%	22	15%	22¼	17¼
Beans, Lady Washington, per lb	.05	.05½	6¼	6¼	11	23	11%	46%	11%	.22	140	118	77¼
Cove oysters, 8-oz. can	.16	.15	11	11	13	8	18%	5	11%	.24	50	60	78¼
Blackberries, standard, 2½-lb. can	.13½	.15	11	11	13	8	18%	5	11%	.21	63%	64%	62%
Canned cherries, stand., 2½-lb. can	.15	.17	13%	9	18	10%	12½	30	12½	.28	86%	86%	68%
Plums, standard, 2½-lb. can	.11	.12	9	9	12	10%	2%	3%	10%	.17	60	51	71
Raspberries, extras, 2-lb. can	.20	.20	16½	16½	20	7%	9	3%	6%	.33	66%	66%	85
Baked beans, tom. sauce, No. 1, can	.09	.07½	8½	8½	11	11	9	11	6%	.10	20	44	35
June peas, 2-lb. can	.08½	.08½	6½	6½	11	11	11	11	6%	.14	69	74	80
Canned corn, Iowa standard	.08	.07½	7½	7½	11	11	9	11	6%	.15	85	100	80
Canned tomatoes, Utah, 2½-lb. can	.10	.09½	34	6¼	31	11	9	11	6%	.17	70	83%	82
Coffee, White House, per lb	.32	.34	6¼	6¼	31	11	9	11	6%	.34	9	80	9%
Condensed milk, tall size, per can	.08½	.08½	5	5	11	13	7	29%	3%	.15	80	80	93½
Dried apples, choice, per lb	.10½	.09½	6¼	6¼	12	13	7	29%	3%	.12	19	42%	14
Dried apricots, choice, per lb	.16	.15	4½	4½	17	62	20	50	18%	.19	26%	26%	58½
Dried currants, choice, per lb	.11	.10½	47	47	17	62	20	70	18%	.33	200	214	94
Dried peaches, choice, per lb	.13	.06%	13½	13½	11	6	5%	25%	7	.11	15%	70	80
Dried pears, choice, per lb	.12	.12	8½	8½	11	6	5%	25%	7	.12	15%	15%	9
Dried plums, 60-70, per lb	.08½	.09½	17	17	10	5½	36½	72½	7	.15	25	31	114
Dried raisins, seeded, 16-oz. pkg	.06¼	.08¼	40	40	10	11%	25	5%	72½	.11	40%	23%	17½
Graham crackers, bulk, per lb	.08	.08	10	10	10	11%	25	5%	12	.12	32	37	23
Soda crackers, bulk, per lb	.08	.08	10	10	10	11%	25	5%	12	.12	32	37	23
Catsup, Blue Label, medium size	.17	.20	18	18	20	54%	6%	6%	18	.80	125	80	112¼
Mont. hard wheat flour, 98-lb. sack	3.50	3.14	38	38	3.40	54%	50	16%	18	.17	52	34	34
Oatmeal, pure, 9-lb. sack	3.30	3.14	1½	1½	3.35	11	2	16%	18	.26	56%	153	63
Corneal, 9-lb. sack	.26	.25½	16%	16%	.25	11	2	16%	18	.68	126	115	94½
Rollod oats, per small package	.08½	.08½	16%	16%	.10	16	2	16%	18	.64	146	151	156
Buckwheat flour, 9-lb. sack	.46½	.46½	16¼	16¼	.45	44	3%	80	4	.11	13%	38	13½
Graham flour, 9-lb. sack	.30	.25	16¼	16¼	.36	44	3%	80	4	.55	85%	122%	54½
Honey, 1-lb. can	.14	.15	7¼	7¼	.12½	12½	16%	37½	4	.10	150	110½	81½
Rice, Japan, per lb	.04	.04	8½	8½	.05½	15%	16%	37½	4	.10	150	110½	81½
Baking soda, per lb	.06½	.06	31½	31½	.05	15%	16%	37½	4	.10	150	110½	81½
Table salt, Utah, per 10-lb. sack	.12	.12	12½	12½	.10	4%	10%	38%	25	.20	14	86%	41½
Vinegar, 9-lb. can	.24	.24	25	25	.25	4%	10%	38%	25	.20	14	86%	41½
Syrup, Fowles Log Cabin, per qt	.38	.33½	12½	12½	.33	4%	10%	38%	25	.20	14	86%	41½
Baking molasses, per qt. can	.21	.13½	70½	70½	.25	20%	23%	38%	25	.20	14	86%	41½
Pect sugar, granulated, per 100 lbs	5.35	5.14	13½	13½	7.69	49%	23%	38%	25	.20	14	86%	41½
Net, M. & M., 1-lb. package	.36½	.40	9½	9½	.31	2%	13	38%	25	.20	14	86%	41½
Butter, fresh cream, per lb	.33	.31	6¼	6¼	.35	13	14%	38%	25	.20	14	86%	41½
Pressed April storage, per dozen	.31½	.35	10½	10½	.33	13	14%	38%	25	.20	14	86%	41½
Quatsa, April storage, per dozen	.18¼	.18	12½	12½	.18	13	14%	38%	25	.20	14	86%	41½

**OPINIONS OF THE
ATTORNEY GENERAL**



OPINIONS OF THE ATTORNEY GENERAL

THE STATE OF MONTANA DEPARTMENT OF ATTORNEY GENERAL

Helena, June 12, 1917.

Hon. W. J. Swindlehurst,
Commissioner of Labor and Industry,
Helena, Montana.

Dear Sir:

I am in receipt of your letter of the 6th inst. with reference to Chapter 70, Session Laws of 1917, relative to the employment of females in offices, and also as to whether or not it is a violation of this Act for a female, having completed her period of 8 hours' service for one firm, to be employed by another employer, thereby exceeding the limit of employment for more than 8 hours of the 24 of one day. Section 1 of Chapter 70 of the 1917 Session Laws provides:

"No female shall be employed in any manufacturing, mechanical or mercantile establishment, telephone exchange room, or office, or telegraph office, laundry, hotel or restaurant in this State, for more than eight hours in any one day."
* * *

The language used is plain and clear, and therefore it is a violation of the provisions of this Section of the Act for any female to be employed in any office, whether the same be a private or public office, for a period of more than eight hours in any one day.

With reference to the employment of a female by two different firms or persons so that the total number of hours for such female so employed is greater than eight hours in any one day, I am enclosing herewith a copy of my letter of April 30, 1917, to Mr. L. D. Glenn, Deputy County Attorney, of Harlowton, Montana, answering this question.

Respectfully,

(Signed)

S. C. FORD,

Attorney General.

**THE STATE OF MONTANA
DEPARTMENT OF ATTORNEY GENERAL**

April 30, 1917.

Mr. L. D. Glenn,
Deputy County Attorney,
Harlowton, Montana.

Dear Sir:

I have your letter of the 24th inst. relative to the enforcement of the 8 hour law for women, and requesting my opinion as to whether or not it is unlawful for different parties to employ the same girl for a fraction of a day each, when the whole number of hours worked by her in each day is more than eight if so, whether each of the parties so working the girl is violating the law by compelling her to work for more than eight hours in a day of twenty-four hours.

In my opinion, whether or not there is a violation of the law by the different parties employing the girl, depends entirely on the facts connected with each particular case.

If, for instance, A requires the services of a girl for any number of hours and B also requires the services of a girl for any number of hours, both together being more than eight hours, and A and B enter into an agreement, or have an understanding of any kind with each other whereby the girl is to be employed by A during certain hours, and after finishing her work for A is then to be employed by B during certain hours, both A and B are guilty of violating the law. On the other hand, if A employs a girl to work for him any number of hours less than eight, and she seeks and obtains employment with B during the hours she is not employed by A, even if the total number of hours she is employed by A and B exceeds eight hours, neither A nor B is violating the law, the employment by A and B being independent of each other and without any understanding or agreement of any kind between them.

Respectfully,

(Signed)

S. C. FORD,

Attorney General.

THE STATE OF MONTANA
DEPARTMENT OF ATTORNEY GENERAL

Helena, Mont., June 11th, 1917.

Hon. W. J. Swindlehurst,
Commissioner of Labor,
Helena, Montana.

Dear Sir:

I am in receipt of your communication submitting to me for my opinion the following question:

"Can Railroads engaged in inter-state commerce, work women in their employ, such as engine wipers and other work or manual labor in and about round houses and shops, longer than the time permitted by State Laws?"

The act of the Legislature of 1917, Chapter 70, known as the "Eight Hour Law for Women," prohibiting the employment of female employes "in any manufacturing, mechanical or mercantile establishment, telephone exchange room, or office, or telegraph office, laundry, hotel or restaurant in this state for more than eight hours in any one day," in my opinion applies to such females who are employed, by interstate railroads, over which class of employment Congress has not assumed jurisdiction. In the absence of Congressional legislation, State acts regulating the hours of labor and other conditions of employment of the employes of railroads engaged in interstate commerce, are valid.

The act of Congress of 1907, deals with the hours of labor of operators, train dispatchers, or other employes, who by the use of the telegraph or telephone dispatches, reports, transmits, receives, or delivers orders pertaining to or affecting interstate train movements.

The act of Congress of 1916, known as the Adamson law, deals with the wages and hours of labor of employes engaged in the interstate movement of trains.

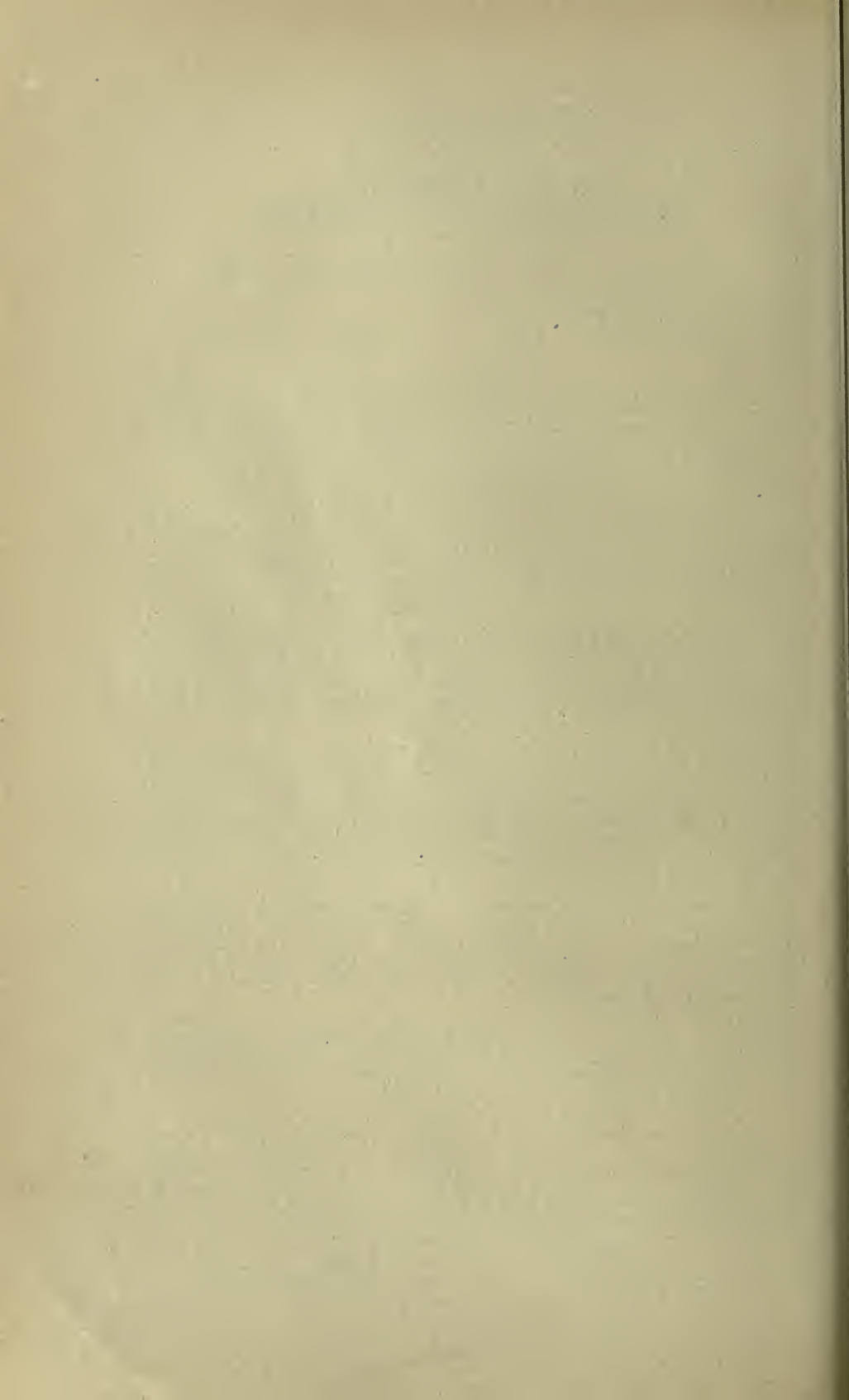
Thus, by these acts, Congress has assumed jurisdiction over the hours of labor of certain classes of employment, to-wit: Operators, train dispatchers, or other employes, who by the use of telegraph or telephone dispatches, reports transmits, etc., orders pertaining to or telephone dispatches, reports, transmits, etc., orders pertaining to or movement of interstate trains.

It is conceded that the power of Congress to regulate interstate commerce, is plenary; that, as incident to it Congress may legislate as to the qualifications, duties and liabilities of employes and others on railway trains, engaged in that commerce; and that such legislation will supersede any state action on the subject.

Nashville, etc., Ry. v. Alabama 128 U. S. 96.

Inasmuch as Congress has not assumed jurisdiction over the class of employment which you refer to, Montana may rightfully legislate and assume power to prevent the employment of women for over eight hours per day. By reason of the foregoing, you are therefore advised that the Interstate Railroads in this State cannot, under the law, work women in their roundhouses, shops, etc., more than eight hours per day.

Respectfully,
(Signed) S. C. FORD,
Attorney General.



STATISTICAL DEPARTMENT

TABLE NO. 6—MONTANA MANUFACTURES. SAW MILLS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Ft. B. M.	Yearly Output Ft. B. M.	Males Employed Skilled	Females Unskilled	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power	
Apex.....	Lumber	1916	\$ 1,000	4,000	100,000	1	20	10	8	15	30	\$3.25	\$2.50	\$2.00	Steam	38	
Avon.....	Lumber & Ties	1917	5,000	20,000	1,200,000	0	20	9	0	15	2	0	3.25	0	0	0	35
Bonner.....	Lumber & Lath	1898	5,975,093	225,000	62,371,581	112	219	9	8	25	25	4.80	3.01	4.00	"	600	
Boulder.....	Lumber	1906	5,000	3,000	7,431,000	1	3	1	10	10	9	4.50	3.50	3.25	"	25	
Bridger.....	Lumber	1908	8,000	15,000	500,000	0	13	1	8	25	5	5.00	2.50	2.00	"	90	
Clancy.....	Lumber	1908	1,000	5,000	250,000	0	0	0	0	30	6	5.00	0	0	"	20	
Clyde Park.....	Lumber	1915	5,000	10,000	400,000	2	5	10	0	26	10	3.75	3.00	0	"	35	
Columbia Falls.....	Lumber	1903	10,900	35,000	1,600,000	11	13	0	0	25	12	4.20	3.25	0	"	80	
Columbia Falls.....	Lumber & Lath	1898	10,000	60,000	10,000,000	10	40	0	0	25	8	4.50	3.25	0	"	250	
Columbia Falls.....	Lumber	1917	75,000	8,000	1,000,000	0	30	10	0	26	6	5.00	3.00	0	"	75	
Cooke City.....	Lumber	1906	6,000	50,000	6,000,000	5	30	0	0	26	6	5.00	3.50	0	Electric	50	
Dalveys.....	Lumber	1897	1,000	15,000	40,000	2	6	0	0	10	2	5.00	3.00	0	Steam	20	
Darby.....	Lumber	1915	6,000	3,000	100,000	0	3	9	0	21	1	0	0	0	"	35	
Ekakaka.....	Lumber	1911	10,000	4,000	4,000,000	15	15	0	0	26	12	6.00	3.00	0	"	50	
Ekakaka.....	Lumber	1910	3,000	8,000	300,000	3	3	1	8	15	10	4.50	2.10	2.00	"	35	
Ekakaka.....	Lumber	1916	3,000	8,000	100,000	3	3	1	0	26	5	4.50	3.00	2.00	"	35	
Ekakaka.....	Lumber	1916	2,500	10,000	1,200,000	0	8	0	0	18	10	0	2.75	0	"	32	
Eureka.....	Lumber	1906	1,500,500	10,000	1,200,000	45	50	0	0	26	8	5.00	4.00	0	"	350	
Fortune.....	Lumber	1911	60,000	350,000	50,000,000	20	10	0	0	26	10	6.00	4.00	0	"	250	
Grey Cliff.....	Lumber	1912	5,000	600,000	12,000,000	2	2	0	0	20	2	4.00	3.50	0	"	80	
Hail.....	Lumber	1910	3,000	2,000	50,000	1	2	0	0	3	4	4.00	3.50	0	"	15	
Harlowton.....	Lumber	1915	3,000	5,000	65,000	0	3	9	0	20	2	4.50	3.50	0	"	30	
Helmville.....	Lumber	1912	1,200	5,000	80,000	2	8	0	0	26	1	4.50	3.00	0	"	30	
Henderson.....	Lumber	1906	63,000	50,000	6,250,000	11	2	0	0	26	4	4.00	3.25	0	"	250	
Hoffman.....	Lumber	1915	2,000	25,000	2,000,000	1	7	0	0	26	4	4.50	3.50	0	"	40	
Hot Springs.....	Lumber	1914	15,000	10,000	400,000	1	15	0	0	20	5	5.00	3.50	0	"	100	
Hysham.....	Lumber	1914	7,000	25,000	2,000,000	5	1	0	0	20	2	4.50	3.00	0	"	20	
Jackson.....	Lumber	1906	2,000	5,500	30,000	1	1	0	0	26	1	0	3.50	0	"	25	
Jeffers.....	Lumber	1915	1,500	5,000	200,000	0	2	0	0	26	1	0	3.50	0	"	80	
Judith Gap.....	Lumber	1917	5,000	3,000	40,000	1	3	0	0	10	2	4.00	3.00	0	"	40	
Lakeview.....	Lumber	1917	5,000	5,000	57,834	2	3	0	0	26	13	6.00	3.00	0	"	40	
Lakeview.....	Lumber	1907	2,000	5,000	57,834	2	3	0	0	5	5	5.00	3.50	0	Water	40	
Libby.....	Lumber & Lath	1911	750,000	275,000	70,000,000	40	100	0	0	26	10	5.00	3.75	0	Steam	750	
Libby.....	Lumber & Lath	1911	750,000	30,000	7,500,000	40	100	0	0	26	10	5.00	3.75	0	Steam	750	

THIRD BIENNIAL REPORT

121

TABLE NO. 6 (CONTINUED)—MONTANA MANUFACTURES. SAW MILLS.

	1914	1,500	3,000	100,000	2	4	0	10	0	26	1	0	5.50	2.75	0	"	30
Lumber	1884	1,200	2,000	3,500	0	2	0	10	0	5	4	0	0	3.25	0	Water	10
McAllister	1916	1,000	2,000	50,000	0	2	0	10	0	15	4	0	0	3.00	0	Steam	15
Meville	1916	45,000	130,000	20,000,000	23	59	0	8	0	26	7	0	0	4.88	0	"	150
Missoula	1917	5,000	30,000	250,000	3	21	0	9	0	10	3	0	0	3.41	0	"	35
Pine Grove	1917	2,000	10,000	600,000	3	25	0	9	0	26	2	0	0	4.00	0	"	40
Plains	1912	15,000	40,000	688,000	50	25	0	9	0	26	3	0	0	3.25	0	"	70
Plains	1917	4,000	45,000	300,000	3	71	1	10	10	26	4	0	30	4.25	3.00	"	50
Polson	1916	31,000	25,000	2,000,000	5	15	0	10	0	26	4	0	4.50	3.00	0	"	100
Polson	1913	7,000	5,000	100,000	1	3	0	10	0	26	1	0	4.00	3.25	0	"	22
Red Lodge	1912	2,500	5,000	300,000	2	3	0	10	0	26	3	0	4.00	3.00	0	"	20
Rena	1914	3,000	9,000	600,000	2	6	1	9	8	26	2	0	4.00	3.50	2.50	"	22
Ronan	1916	5,000	12,000	1,000,000	0	6	0	10	0	26	4	0	0	2.90	0	"	32
Roundup	1908	3,800	10,000	150,000	0	6	0	10	0	15	3	0	4.50	0	0	"	25
St. Ignatius	1912	3,000	7,000	500,000	1	0	0	10	0	20	3	0	5.00	3.50	0	"	25
St. Regis	1917	3,000	20,000	820,000	4	10	0	10	0	20	3	0	5.00	3.50	0	"	40
Sheridan	1915	300	1,000	20,000	0	1	0	9	0	20	1	0	0	4.00	0	"	16
Somers	1900	100,000	300,000	66,000,000	25	47	0	10	0	26	8	0	4.53	3.03	0	"	900
Tarkio				* 1,701,800												"	
Townsend	1917	10,000	20,000	1,000,000	3	15	0	9	0	26	5	0	5.00	3.55	0	"	30
Trout Creek	1907	5,500	2,000	60,000	2	3	0	10	0	26	1	0	5.50	3.00	0	"	12
Troy	1908	3,000	5,000	100,000	1	2	0	8	0	26	1	0	5.00	3.00	0	"	30
Warland	1910	2,600	4,000	60,000	1	1	0	9	0	15	1	0	4.50	3.00	0	"	20
Waterloo	1916	81,000	40,000	10,000,000	3	24	0	10	0	26	12	0	6.00	4.00	0	"	50
Whitefish	1914	2,000	3,000	100,000	1	2	0	8	0	20	3	0	5.00	2.50	0	"	16
White Sul'r Sps.	1906	9,000	30,000	1,500,000	3	27	0	10	0	26	2	0	5.17	3.25	0	"	75
White Sul'r Sps.	1911	1,000	4,000	125,000	1	3	0	10	0	26	3	0	4.00	2.00	0	"	40
Woodside	1912	1,000	3,000	50,000	1	1	0	8	0	20	2	0	4.50	3.25	0	"	18
Woodside	1908	2,000	6,000	273,000	1	1	0	9	0	20	3	0	5.00	3.50	0	"	16
Total		\$8,932,093	2,953,500	336,408,965	429	896	8	9 1/2	8 1/2	2 1/2	4%	29	\$4.69	\$3.08	\$2.59		5,464

*Lath.

Note: Timbers used in the mines of the state yearly, which include round timbers, stulls and poles, probably aggregate considerably more than 100,000,000 feet board measure, and are not included in the above figures. Many lumber companies are producing mining timbers, in addition to their regular output of sawed lumber. Two firms, the Mill Creek Timber company and the Mines Timber company, in Deer Lodge county, report for the fiscal year ending November 1, 1917, a production of 415,330 mine stulls, 60,614 converter poles, 74,446 logging poles and nearly 5,000 cords of wood. No report is available for railroad ties and telephone and telegraph poles.

LABOR AND INDUSTRY

TABLE NO. 7 — MONTANA MANUFACTURES. PLANING MILLS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Ft. B. M.	Yearly Output Ft. B. M.	Males Employed Skilled	Males Employed Unskilled	Employed Females	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	AV. Wage per Day, Skilled	AV. Wage per Day, Unskilled	Wages Females	Kind of Power	Number of Horse Power
Bonner.....	Lumber	1898	\$ 30,681	180,000	48,084,729	15	15	0	9	0	25 1/2	0	\$3.62	\$2.80	0	Steam	290
Bozeman.....	Lumber	1917	4,000	8,000	1,300,000	1	1	0	8	0	24 1/2	0	4.25	3.50	0	"	14
Columbia Falls.....	Lumber	1903	4,400	35,000	1,100,000	4	4	0	10	0	20 1/2	0	4.00	3.25	0	"	60
Columbia Falls.....	Lumber	1898	5,000	20,000	4,000,000	3	4	0	10	0	26 1/2	0	4.00	3.25	0	"	150
Columbia Falls.....	Lumber	1917	75,000	50,000	6,000,000	2	10	0	10	0	26 1/2	0	4.00	3.00	0	"	150
Eureka.....	Lumber	1906	150,000	150,000	40,000,000	10	10	0	10	0	26 1/2	0	3.50	2.85	0	"	225
Fortine.....	Lumber	1899	75,000	8,000	8,000,000	3	2	0	10	0	14 1/2	0	5.00	3.50	0	"	220
Hamilton.....	Lumber	1905	50,000	8,000	8,250,000	1	3	0	9	0	24 1/2	0	4.00	3.50	0	S. & E.	45
Hebden.....	Lumber	1906	40,000	60,000	10,587,188	8	12	0	12	0	10 1/2	0	4.25	3.50	0	Steam	250
Libby.....	Lumber	1911	150,000	275,000	45,000,000	20	20	0	10	0	20 1/2	0	4.25	3.20	0	"	350
Missoula.....	Lumber	1910	125,000	200,000	20,000,000	12	27	0	8	0	26 1/2	0	4.25	3.50	0	"	175
Prairie.....	Lumber	1912	20,000	20,000	600,000	5	4	0	8	0	20 1/2	0	4.50	3.50	0	"	25
Ronan.....	Lumber	1912	1,750	15,000	400,000	2	4	0	8 1/2	0	26 1/2	0	4.50	3.00	0	"	25
St. Regis.....	Lumber	1898	21,000	16,000	7,841,244	10	16	0	10	0	26 1/2	0	4.11	3.89	0	"	200
Somers.....	Lumber	1900	35,000	150,000	27,361,050	15	10	0	10	0	23 1/2	0	3.48	3.88	0	"	400
Ward.....	Lumber	1916	81,000	40,000	10,000,000	3	15	0	10	0	26 1/2	0	6.00	3.75	0	"	75
Whitefish.....	Lumber	1906	6,000	25,000	1,500,000	1	6	0	10	0	26 1/2	0	5.00	3.25	0	S. & E.	75
Whitehall.....	Lumber	1915	2,000	2,000	300,000	1	1	0	8	0	26 1/2	0	6.00	4.00	0	Electric	5
Total.....			\$ 658,831	1,253,631	230,924,191	113	163	0	9 1/2	0	22 1/2	0	\$4.38	\$3.25	0		2,584

THIRD BIENNIAL REPORT

123

TABLE NO. 8—MONTANA MANUFACTURES. BREWERIES.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Barrels	Yearly Output Barrels	Males Employed Skilled	Males Employed Unskilled	Employed Females	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Per Year	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda.....	Beer	1898	\$ 260,000	100	21,977	15	1	0	0	0	26 12	26 12	0	0	\$5.50	\$4.00	0	Steam	200
Billings.....	Beer	1900	100,000	120	22,452	24	1	0	0	0	26 12	26 12	0	0	7.15	4.90	0	Steam	280
Bozeman.....	Beer	1895	7,500	150	7,000	21	2	0	0	0	26 12	26 12	0	0	3.50	4.90	0	Steam	93
Butte.....	Beer	1900	150,000	200	48,000	35	0	0	0	0	26 12	26 12	0	0	6.00	0	0	S. & E.	200
Butte.....	Beer	1900	17,623	36	5,500	3	0	0	0	0	26 12	26 12	0	0	5.00	0	0	S. & E.	115
Butte.....	Beer	1876	750,000	150	50,000	0	27	0	0	0	26 12	26 12	0	0	5.50	0	0	S. & E.	175
Deer Lodge.....	Beer	1903	10,000	7	2,000	2	0	0	0	0	26 12	26 12	0	0	3.50	0	0	Steam	15
Dillon.....	Beer	1908	25,000	7	2,000	4	0	0	0	0	26 12	26 12	0	0	4.00	0	0	Steam	22
Great Falls.....	Beer	1895	300,000	225	39,012	28	1	0	0	0	26 12	26 12	0	0	5.00	\$2.50	50	Steam	310
Great Falls.....	Beer	1894	250,000	200	28,000	25	6	0	0	0	26 12	26 12	0	0	5.00	4.00	0	S. & E.	250
Helena.....	Beer	1910	150,000	45	6,000	6	3	0	0	0	26 12	26 12	0	0	5.00	4.00	0	S. & E.	110
Helena.....	Beer	1865	175,000	75	23,500	31	0	0	0	0	26 12	26 12	0	0	5.50	4.00	0	S. & E.	90
Kalispell.....	Beer	1895	105,000	100	11,000	10	2	0	0	0	26 12	26 12	0	0	5.00	4.50	0	Electric	84
Lewistown.....	Beer	1908	45,000	23	7,000	10	0	0	0	0	26 12	26 12	0	0	5.00	3.00	0	S. & E.	50
Manhattan.....	Beer	1890	532,100	23,000	8,000	0	0	0	0	0	26 12	26 12	0	0	5.33	3.00	0	Electric	117
Missoula.....	Malt	1895	225,000	150	22,500	30	0	0	0	0	26 12	26 12	0	0	5.00	4.00	0	S. & E.	75
Phillipsburg.....	Beer	1895	20,000	4	1,180	1	0	0	0	0	26 12	26 12	0	0	5.50	4.00	0	Steam	40
Red Lodge.....	Beer	1911	80,000	70	75,000	6	1	0	0	0	28 12	26 12	0	0	4.93	4.50	0	Steam	160
Townsend.....	Beer	1890	16,000	8	1,200	1	1	0	0	0	26 12	26 12	0	0	5.00	2.75	0	Steam	62
Virginia City.....	Beer	1863	10,000	6	1,800	3	1	0	0	0	26 12	26 12	0	0	4.00	3.00	0	Steam	18
Total.....			\$3,172,233	1,575	420,173	257	59	1	8	8	26 12	26 12	26	26	\$5.02	\$3.86	\$2.50		2,466

*Pounds.

TABLE NO. 9—MONTANA MANUFACTURES. BOTTLING WORKS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed	Skilled	Males Employed	Unskilled	Employed	Hours per Day	Males	Hours per Day	Females	Days per Month	Months Per Year	Days per Month	Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Billings	Soft Drinks	1906	\$	100	15,000	2	2	2	2	0	0	0	0	0	26 12	12	0	0	\$4.50	\$4.00	0	Electric	0
Butte	Soft Drinks	1903	20,000	75	18,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	5.00	0	0	Electric	0
Butte	Soft Drinks	1888	10,000	85	24,700	0	0	0	0	0	0	0	0	0	26 12	12	0	0	5.00	0	0	Electric	0
Butte	Soft Drinks	1907	6,000	50	12,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	5.00	0	0	Electric	0
Glasgow	Soft Drinks	1916	4,000	30	6,000	0	0	0	0	0	0	0	0	0	20 12	12	0	0	4.50	0	0	Water	0
Glendive	Soft Drinks	1915	14,000	50	12,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.50	3.50	0	Electric	0
Great Falls	Soft Drinks	1908	800	20	6,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Great Falls	Soft Drinks	1915	3,000	25	6,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Great Falls	Soft Drinks	1892	3,000	25	7,500	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Great Falls	Soft Drinks	1892	3,000	25	7,500	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Great Falls	Soft Drinks	1916	3,000	30	10,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	3.00	0	Electric	0
Great Falls	Soft Drinks	1907	6,000	40	12,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Havre	Soft Drinks	1866	1,000	20	6,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Steam	0
Helena	Soft Drinks	1866	1,000	20	6,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Kalispell	Soft Drinks	1909	1,000	12	3,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Lewistown	Soft Drinks	1904	3,000	20	6,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	0
Livingston	Soft Drinks	1903	11,500	350	100,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	4.50	0	0	Steam	0
Miles City	Soft Drinks	1907	12,000	20	6,000	0	0	0	0	0	0	0	0	0	26 12	12	0	0	5.00	0	0	Electric	0
Missoula	Soft Drinks	1914	15,000	400	30,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	3.50	\$2.00	Electric	1 1/2
Missoula	Soft Drinks	1905	3,000	200	25,000	2	2	2	2	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	1 1/2
Philipsburg	Soft Drinks	1889	1,000	20	6,000	1	1	1	1	0	0	0	0	0	10 12	12	0	0	4.00	0	0	Electric	5 1/2
Polson	Soft Drinks	1910	1,700	8	2,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	4.00	0	0	Electric	5 1/2
Red Lodge	Soft Drinks	1916	5,000	300	15,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	6.00	0	0	Steam	0
Roundup	Soft Drinks	1915	2,000	7	2,000	1	1	1	1	0	0	0	0	0	26 12	12	0	0	6.00	0	0	Electric	5 1/2
Total			\$ 134,000	1,887	\$ 330,200	33	33	33	33	1	8	6	25 12	8	\$3.50	\$2.00	81 1/2						

THIRD BIENNIAL REPORT

125

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employe Skilled	Males Employe Unskilled	Hours per Day Males	Hours per Day Females	Days per Month	AV. Wage pe. Day Skilled	AV. Wage per Day Unskilled	Wages Females	Kind of Power	Horse Power
Anaconda.....	Laundering	1915	\$ 2,500	100	\$ 35,913	9	0	9	9	26	\$ 3.35	0	\$ 2.20	Electric	18
Anaconda.....	Laundering	1890	40,000	225	59,179	9	1	20	2	26	5.00	\$ 4.00	\$ 2.20	Steam	95
Baker.....	Laundering	1894	3,000	15	58,000	0	0	0	0	26	0	0	2.00	Electric	15
Billings.....	Laundering	1906	100,000	750	180,000	14	13	2	2	26	4.50	3.50	2.10	Steam	250
Billings.....	Laundering	1908	15,000	200	53,000	9	0	0	0	26	4.64	0	2.23	Steam	50
Boulder.....	Laundering	1913	1,000	10	10,000	0	0	0	0	26	0	0	2.10	Steam	3
Bozeman.....	Laundering	1911	2,500	150	43,000	8	2	15	2	26	3.75	2.50	2.00	Steam	70
Butte.....	Laundering	1914	75,000	500	142,638	5	13	50	3	26	5.35	4.00	2.00	Steam	160
Butte.....	Laundering	1910	8,925	300	86,899	23	0	38	0	26	3.75	4.50	2.00	Steam	35
Butte.....	Laundering	1890	176,000	600	150,000	12	13	65	0	26	3.25	3.25	2.10	Steam	125
Butte.....	Laundering	1915	3,000	34	10,000	3	3	4	0	26	2.6	3.50	2.35	Steam	10
Chinook.....	Laundering	1915	6,000	40	7,800	0	1	6	0	26	4.10	4.00	2.00	Steam	60
Choteau.....	Laundering	1919	1,200	75	25,000	3	0	9	0	26	4.50	4.00	2.00	Steam	14
Conrad.....	Laundering	1912	7,000	10	3,650	0	1	12	0	26	4.15	3.00	2.00	Steam	3
Dillon.....	Laundering	1912	2,000	50	9,600	0	0	4	0	26	4.00	3.00	1.90	Steam	30
Fort Benton.....	Laundering	1913	15,000	60	16,800	3	1	10	0	26	4.00	3.00	2.00	Electric	10 1/2
Glenview.....	Laundering	1905	19,000	250	51,363	6	3	30	0	26	4.50	3.00	2.00	Steam	15
Great Falls.....	Laundering	1915	75,000	350	170,000	15	8	75	0	26	5.50	4.00	2.00	Electric	28
Great Falls.....	Laundering	1910	15,000	100	11,600	2	1	3	0	26	4.50	3.00	2.00	Electric	40
Hamilton.....	Laundering	1906	5,000	25	10,000	0	0	4	0	26	0	0	2.00	Steam	10
Hardin.....	Laundering	1914	2,000	35	15,000	2	0	8	0	26	4.50	2.00	1.90	Steam	12
Harlowton.....	Laundering	1917	30,000	200	48,859	1	4	15	10	26	4.00	2.00	2.00	Steam	8
Hayden.....	Laundering	1894	35,000	26	9,600	2	4	8	6 1/2	26	4.85	2.00	2.00	Steam	40
Helena.....	Laundering	1889	20,000	154	48,000	9	0	23	0	26	4.20	0	42	Steam	75
Helena.....	Laundering	1916	20,000	200	45,000	7	0	22	0	26	3.50	1.90	2.80	Electric	15
Kalispell.....	Laundering	1909	3,000	65	18,000	2	1	8	0	26	3.50	1.90	2.80	Electric	10
Kalispell.....	Laundering	1895	20,000	100	19,000	0	3	8	0	26	3.33	1.75	1.50	Electric	15
Lewistown.....	Laundering	1900	15,000	125	36,800	5	0	20	9	26	3.33	0	2.00	Steam	30
Libby.....	Laundering	1906	3,500	25	7,039	1	0	2	9	26	3.50	3.50	1.75	Electric	15
Livingston.....	Laundering	1912	20,000	150	25,000	4	3	15	10	26	4.50	3.50	2.24	Electric	15
Livingston.....	Laundering	1913	14,000	100	30,000	3	0	14	10	26	4.50	3.50	2.24	Electric	60
Miles City.....	Laundering	1900	60,000	170	45,150	0	9	24	9	26	4.50	3.50	1.50	Electric	50
Missoula.....	Laundering	1890	20,000	300	60,000	8	4	31	0	26	4.50	2.60	2.25	Electric	38
Missoula.....	Laundering	1909	45,000	250	65,000	10	0	24	0	26	4.00	2.50	1.65	Electric	30
Polson.....	Laundering	1917	6,000	34	10,000	1	1	4	8	26	5.00	2.00	2.10	Electric	9
Red Lodge.....	Laundering	1913	4,000	45	12,720	4	0	13	8	26	5.00	2.00	2.10	Electric	20
Roundup.....	Laundering	1910	20,000	100	36,500	3	1	6	10	26	5.00	2.50	2.00	Electric	20
Sidney.....	Laundering	1915	7,000	75	12,000	1	0	2	8	26	2.00	0	2.00	Electric	25
Stevensville.....	Laundering	1902	4,000	30	25,000	1	1	5	0	26	2.00	0	2.00	Electric	20
Whitefish.....	Laundering	1911	2,000	10	3,120	1	0	2	8	26	2.00	0	2.00	Electric	28
Total.....			\$ 915,625	\$ 6,133	\$ 1,673,190	192	98	746	8 1/2	26 1/2	\$ 3.99	\$ 3.05	\$ 2.03		1,573 1/2

*Apprentices.

LABOR AND INDUSTRY

TABLE NO. 11—MONTANA MANUFACTURERS. STEAM BAKERIES.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed	Skilled	Males Employed	Unskilled	Hours per Day	Hours per Day	Days per Month	Days per Month	Days per Month	Per Year	AV. Wage per Day, Skilled	AV. Wage per Day, Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda.....	Bakery Products	1884	5,000	275	65,000	6	6	1	1	8	8	26	26	26	26	\$5.50	\$2.50	\$2.35	Electric	1
Anaconda.....	Bakery Products	1884	4,000	50	10,000	1	1	0	0	8	8	26	26	26	26	5.25	0	0	Electric	1
Big Sandy.....	Bakery Products	1915	6,000	15	4,000	0	0	0	0	8	8	26	26	26	26	4.50	0	2.00	Electric	1
Big Timber.....	Bakery Products	1916	4,000	75	20,000	1	1	0	0	8	8	26	26	26	26	4.60	0	2.00	Electric	1
Billings.....	Bakery Products	1916	13,500	305	90,000	4	4	3	3	9	9	26	26	26	26	6.25	3.50	1.00	Electric	1
Bozeman.....	Bakery Products	1916	7,300	385	90,000	1	1	1	1	8	8	26	26	26	26	4.50	1.75	1.50	Electric	1
Butte.....	Bakery Products	1917	3,000	30	10,000	0	0	0	0	8	8	26	26	26	26	0	3.00	2.00	Electric	1
Butte.....	Bakery Products	1917	3,000	30	10,000	0	0	0	0	8	8	26	26	26	26	0	3.00	2.00	Electric	1
Butte.....	Bakery Products	1917	3,000	20	24,000	1	1	2	2	8	8	26	26	26	26	6.00	3.50	3.40	Electric	1
Butte.....	Bakery Products	1918	1,000	20	14,000	1	1	2	2	8	8	26	26	26	26	5.00	3.00	3.00	Electric	1
Butte.....	Bakery Products	1918	3,950	140	45,000	2	2	2	2	8	8	26	26	26	26	5.00	4.00	0	Electric	1
Butte.....	Bakery Products	1899	1,000	56	20,440	0	0	0	0	8	8	26	26	26	26	4.75	1.75	1.50	Electric	1
Butte.....	Bakery Products	1917	1,500	50	52,000	0	0	0	0	8	8	26	26	26	26	6.00	0	0	Electric	1
Butte.....	Bakery Products	1887	6,000	150	152,000	8	8	0	0	8	8	26	26	26	26	5.00	4.50	3.00	Electric	1
Butte.....	Bakery Products	1904	50,000	400	144,000	11	11	0	0	8	8	26	26	26	26	5.50	2.50	1.75	Electric	1
Butte.....	Bakery Products	1899	5,000	170	50,000	4	4	1	1	8	8	26	26	26	26	5.00	0	0	Electric	1
Butte.....	Bakery Products	1913	2,000	30	10,950	1	1	0	0	8	8	26	26	26	26	4.00	0	0	Electric	1
Chinook.....	Bakery Products	1914	700	20	6,000	0	0	0	0	8	8	26	26	26	26	0	0	0	Electric	1
Columbus.....	Bakery Products	1914	500	25	7,825	0	0	0	0	8	8	26	26	26	26	0	0	0	Electric	1
Deer Lodge.....	Bakery Products	1917	4,000	43	12,460	1	1	1	1	8	8	26	26	26	26	5.00	3.00	2.00	Electric	1
Dillon.....	Bakery Products	1909	3,000	30	10,000	1	1	0	0	8	8	26	26	26	26	5.00	0	0	Electric	1
Forsyth.....	Bakery Products	1916	4,000	65	12,000	0	0	0	0	8	8	26	26	26	26	5.00	0	0	Electric	1
Glendive.....	Bakery Products	1908	4,000	30	8,000	0	0	0	0	8	8	26	26	26	26	5.00	0	0	Electric	1
Great Falls.....	Bakery Products	1916	2,000	100	30,000	3	3	2	2	8	8	26	26	26	26	5.00	0	0	Electric	1
Great Falls.....	Bakery Products	1907	6,000	30	18,000	0	0	0	0	8	8	26	26	26	26	5.00	3.50	2.00	Electric	1
Great Falls.....	Bakery Products	1914	6,000	60	18,000	2	2	1	1	8	8	26	26	26	26	5.00	3.50	2.00	Electric	1
Great Falls.....	Bakery Products	1900	5,000	75	20,000	4	4	3	3	8	8	26	26	26	26	5.00	3.50	2.50	Electric	1
Great Falls.....	Bakery Products	1907	20,000	175	50,000	4	4	3	3	8	8	26	26	26	26	5.00	3.50	1.75	Electric	1
Harlowton.....	Bakery Products	1912	4,000	20	6,000	0	0	1	1	8	8	26	26	26	26	0	0	0	Electric	1
Harlowton.....	Bakery Products	1917	2,000	30	9,000	1	1	1	1	9	9	26	26	26	26	4.00	1.50	0	Electric	1
Harlowton.....	Bakery Products	1917	2,000	30	9,000	1	1	1	1	9	9	26	26	26	26	4.00	1.50	0	Electric	1
Hayden.....	Bakery Products	1904	15,000	100	35,000	4	4	2	2	8	8	26	26	26	26	4.75	3.00	2.00	Electric	1
Helena.....	Bakery Products	1889	5,000	100	10,000	3	3	2	2	8	8	26	26	26	26	4.00	0	1.25	Electric	1
Helena.....	Bakery Products	1916	35,000	1,200	100,000	9	9	2	2	10	10	26	26	26	26	4.50	3.50	1.75	Electric	1
Kalispell.....	Bakery Products	1903	10,000	10	3,000	1	1	0	0	8	8	26	26	26	26	4.00	0	0	Electric	1
Kalispell.....	Bakery Products	1904	7,000	41	15,000	1	1	2	2	8	8	26	26	26	26	4.50	2.75	0	Electric	1
Lewistown.....	Bakery Products	1905	5,000	125	45,000	3	3	0	0	8	8	26	26	26	26	4.50	5.50	2.75	Electric	1
Lewistown.....	Bakery Products	1912	8,500	110	38,600	3	3	0	0	8	8	26	26	26	26	5.00	3.50	3.30	Electric	1
Lewistown.....	Bakery Products	1908	12,000	175	49,463	3	3	2	2	8	8	26	26	26	26	5.00	3.50	2.25	Electric	1

TABLE NO. 11 (Continued)—MONTANA MANUFACTURERS. STEAM BAKERIES.

	1916	1,000	85	10,000	2	0	1	8	8	26 12	26	6.20	0	1.75	Electric	7
Livingston.....	1916	1,000	85	10,000	2	0	1	8	8	26 12	26	6.20	0	1.75	Electric	7
Miles City.....	1914	5,000	75	20,000	1	2	1	1	1	26 12	26	4.50	3.50	2.00	Electric	4
Missoula.....	1916	2,500	50	12,000	2	2	1	1	1	26 12	26	6.00	3.50	2.00	Electric	5
Missoula.....	1882	20,000	200	60,000	4	4	1	1	1	26 12	26	4.75	3.25	2.00	Electric	3
Missoula.....	1916	3,000	15	7,000	1	0	1	1	1	26 12	26	4.00	0	2.00	Electric	5
Moore.....	1915	1,000	25	7,345	1	1	1	1	1	26 12	26	4.75	2.75	2.00	Electric	2
Phillipsburg.....	1915	1,300	15	4,500	1	0	0	0	0	26 12	0	4.50	0	0	Electric	4
Plentywood.....	1915	4,000	12	2,400	1	0	0	0	0	26 12	0	4.25	0	0	Electric	2
Polson.....	1900	2,000	22	7,800	1	2	1	1	1	26 12	26	4.50	2.25	2.10	.....	.....
Red Lodge.....	1917	2,000	23	7,786	2	0	1	1	1	26 12	0	3.75	0	0	.....	.....
Shelby.....	1910	2,500	30	9,500	1	1	0	0	0	26 12	0	4.75	3.00	0	Electric	3
Sidney.....	1913	4,000	50	12,000	2	1	0	0	0	26 12	0	5.00	0	0	.....	.....
Stevensville.....	1916	2,500	25	8,000	0	0	1	0	0	0 12	26	4.50	0	3.00	Electric	2
Terry.....	1913	1,000	20	7,200	1	0	1	0	0	26 12	26	4.75	0	2.00	.....	.....
Thompson.....	1910	1,200	15	5,000	1	0	1	0	0	26 12	26	3.75	0	1.50	.....	.....
Three Forks.....	1912	1,200	15	6,000	1	0	1	0	0	26 12	26	5.00	0	2.00	.....	.....
Valer.....	1916	5,000	25	7,000	1	0	0	0	0	26 12	0	5.00	0	0	Electric	2
Whitefish.....	1910	1,200	20	3,000	1	0	0	0	0	26 12	0	5.00	0	0	.....	.....
Whitefish.....	1912	1,000	35	6,280	2	0	0	0	0	26 12	0	5.00	0	0	.....	.....
Wilbaur.....	1917	1,500	10	3,000	1	0	0	0	0	26 12	0	4.75	0	0	.....	.....
Total.....	\$	358,150	\$	5,400	\$	1,330,549	114	70	54	8 1/2	8	26 12	\$84.89	\$3.00	\$2.05	187

TABLE NO. 12—MONTANA MANUFACTURES. CIGAR MANUFACTORIES.

POSTOFFICE	Goods Manu- factured or	Date When Established	Capital In- vested	Daily Capacity Cigars	Yearly Out- put Cigars	Males Employed Skilled	Males Employed Unskilled	Em- ployed	Hours Per Day Males	Hours Per Day Females	Days Per Mo. Males	Months per Year	Days Per Mo. Females	Av. Wage Day Skilled	Av. Wage Day Unskilled	Females
Anaconda	Cigars	1899	\$ 2,000	800	240,000	4	1	1	8	0	26 12	26 12	0	4.50	1.50	1.50
Anaconda	Cigars	1912	500	200	60,000	1	0	0	8	0	26 12	26 12	0	5.50	0	0
Anaconda	Cigars	1895	1,000	350	100,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Baker	Cigars	1911	300	250	60,000	1	0	0	8	0	26 12	26 12	0	4.00	0	0
Billings	Cigars	1898	900	300	75,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Billings	Cigars	1911	300	200	100,000	1	1	0	8	0	26 12	26 12	0	4.00	1.00	0
Billings	Cigars	1912	500	300	40,000	1	1	0	8	0	26 12	26 12	0	4.00	1.00	0
Billings	Cigars	1911	800	150	45,000	1	1	0	8	0	26 12	26 12	0	4.00	0	0
Billings	Cigars	1917	600	100	17,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Billings	Cigars	1888	300	200	85,400	2	1	0	8	0	26 12	26 12	0	4.00	0	1.25
Bozeman	Cigars	1917	1,000	300	45,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Butte	Cigars	1917	3,500	600	180,000	4	1	1	8	0	26 12	26 12	0	3.35	2.00	2.00
Butte	Cigars	1917	1,500	200	45,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Chinook	Cigars	1915	500	100	25,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Columbia	Cigars	1916	1,200	200	60,000	1	0	0	8	0	26 12	26 12	0	4.00	2.00	0
Columbus	Cigars	1910	500	200	62,000	1	0	0	8	0	26 12	26 12	0	4.00	0	0
Dagmar	Cigars	1912	100	100	9,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Deer Lodge	Cigars	1911	1,500	500	100,000	2	1	0	8	0	26 12	26 12	0	4.00	1.50	0
Dillon	Cigars	1911	2,000	600	90,000	1	1	0	8	0	26 12	26 12	0	5.00	2.00	0
Froid	Cigars	1916	100	50	10,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Great Falls	Cigars	1910	700	300	60,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Great Falls	Cigars	1917	1,800	225	8,400	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Great Falls	Cigars	1897	1,000	200	6,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Great Falls	Cigars	1917	300	250	81,750	2	0	0	8	0	26 12	26 12	0	5.00	0	0
Great Falls	Cigars	1916	1,000	250	175,000	4	2	0	8	0	26 12	26 12	0	4.50	1.75	2.00
Have	Cigars	1914	1,000	650	160,000	3	0	1	8	0	26 12	26 12	0	4.00	0	0
Helena	Cigars	1912	2,000	600	200,000	4	0	1	8	0	26 12	26 12	0	5.00	0	0
Helena	Cigars	1889	3,000	500	130,000	2	1	0	8	0	26 12	26 12	0	4.50	2.00	0
Hysham	Cigars	1917	3,000	50	13,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Kalispell	Cigars	1892	1,000	500	75,000	2	0	1	8	0	26 12	26 12	0	4.00	0	1.50
Livingston	Cigars	1886	400	400	82,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Livingston	Cigars	1911	25,000	50	13,950	16	1	0	8	0	26 12	26 12	0	5.10	3.50	2.50
Malta	Cigars	1911	300	50	13,950	1	0	0	8	0	26 12	26 12	0	4.00	0	0
Miles City	Cigars	1915	1,000	300	120,000	2	1	0	8	0	26 12	26 12	0	5.00	1.25	1.00
Missoula	Cigars	1914	500	200	48,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Missoula	Cigars	1917	175	150	14,000	1	0	0	8	0	26 12	26 12	0	5.00	0	0
Missoula	Cigars	1912	3,500	150	163,550	2	1	0	8	0	26 12	26 12	0	5.00	0	0
Myers	Cigars	1914	1,000	250	70,000	1	0	0	8	0	26 12	26 12	0	4.50	0	3.50
Phillipsburg	Cigars	1914	1,000	450	90,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Roundup	Cigars	1914	500	200	21,875	1	0	0	8	0	26 12	26 12	0	4.50	1.00	0
Savage	Cigars	1912	500	250	75,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Townsend	Cigars	1901	300	150	50,000	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Waterloo	Cigars	1892	400	150	10,950	1	0	0	8	0	26 12	26 12	0	4.50	0	0
Wolf Point	Cigars	1914	150	100	4,900	1	0	0	4	0	10 12	10 12	0	4.50	0	0
Wolf Point	Cigars	1914	500	250	35,200	1	0	0	4	0	15 12	15 12	0	4.50	0	0
Total			\$ 67,925	16,075	3,914,075	81	15	15	8	8	22 11	24 3	24 3	4.53	1.72	2.02

TABLE NO. 13—MONTANA MANUFACTURES. FOUNDRIES, REPAIR AND MACHINE SHOPS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda.....	Castings & Mch. Rprs.	1890	\$ 382,166	\$ 3,500	934,376	118	153	8	0	26 12	26 12	0 \$6.12	4.57	0	E. & S.	L. 035
Billings.....	Foundry and Repairs	1917	10,000	1,000	36,000	8	7	8	8	26 12	26 12	26 5.00	4.25	33.00	Electric	45
Butte.....	Castings & Mch. Rprs.	1890	100,000	1,000	300,957	32	16	8	8	26 12	26 12	26 6.25	4.50	3.00	Electric	101
Butte.....	Castings & Mch. Rprs.	1880	24,000	350	125,000	20	20	8	4	26 12	26 12	26 6.50	4.75	2.50	Electric	78
Butte.....	Ornmtl. Iron Wk.-Wire	1915	2,000	18	5,800	1	1	0	0	26 12	26 12	0 5.00	4.00	0	Electric	5
Big Sandy.....	Castings & Mch. Rprs.	1916	10,000	30	10,000	3	2	8	0	26 12	26 12	0 5.00	4.00	0	Electric	5
Great Falls.....	Castings & Mch. Rprs.	1890	176,000	850	250,000	40	20	8	0	26 12	26 12	0 5.75	4.00	0	Electric	85
Great Falls.....	Castings & Mch. Rprs.	1910	4,000	75	20,000	4	2	8	0	26 12	26 12	0 7.00	4.50	0	Electric	15
Great Falls.....	Frn. & Sht Met. Wk.	1914	15,000	350	100,000	15	4	8	0	26 12	26 12	0 5.50	2.50	0	Hand	17½
Helena.....	Machinery Repairs	1914	50,000	65	19,955	6	2	0	0	26 12	26 12	0 5.50	2.50	0	Electric	30
Helena.....	Castings & Mch. Rprs.	1894	3,000	275	85,000	11	12	8	8	26 12	26 12	0 6.00	4.00	4.00	Electric	7½
Helena.....	Machinery Repairs	1910	3,000	30	8,000	3	1	0	8	26 12	26 12	0 6.00	4.00	0	Electric	20
Kalispell.....	Castings & Mch. Rprs.	1905	25,000	31	11,254	5	9	0	9	26 12	26 12	0 4.75	3.50	0	Electric	5
Lewistown.....	Machinery Repairs	1909	9,000	15	5,600	1	1	0	0	26 12	26 12	0 5.00	3.50	0	Electric	17
Missoula.....	Foundry & Mah. Shop	1889	30,000	75	23,400	6	3	8	8	26 12	26 12	26 5.00	3.50	3.00	Electric	17
	Total.....		\$ 895,166	\$ 7,664	\$ 2,838,742	273	253	8	8	26 12	26 12	26 \$5.62	\$3.93	\$3.10		1,466

LABOR AND INDUSTRY

TABLE NO. 14—MONTANA MANUFACTURERS. FLOUR MILLS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Barrels	Yearly Output Barrels	Males Employed	Females Employed	Hours per Day Males	Hours per Day Females	Days per Month Males	Months Per Year	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Absarokee.....	Flour and Feed	1912	\$ 13,000	25	1,200	2	0	8	0	26 1/2	12	0	\$4.50	0	0	Coal Oil	25
Antelope.....	Flour and Feed	1916	13,000	50	1,150	1	0	10	0	26 1/2	0	0	4.00	\$8.00	0	Steam	80
Ashtland.....	Flour and Feed	1916	5,500	12 1/2	1,000	1	0	9	0	24 1/2	0	0	4.00	0	0	Gasoline	15
Bainville.....	Flour and Feed	1915	7,500	500	30,000	10	0	10	0	26 1/2	3	0	5.00	3.00	0	Steam	200
Belgrade.....	Flour and Feed	1903	300,000	250	62,000	7	15	2	8	26 1/2	26	26	4.00	2.25	\$2.60	Electric	135
Belt.....	Flour and Feed	1913	12,000	30	2,200	2	0	9	0	26 1/2	0	0	5.50	0	0	Electric	20
Big Sandy.....	Flour and Feed	1917	10,000	25	5,250	3	0	10	0	26 1/2	0	0	3.00	0	0	Electric	23
Big Timber.....	Flour and Feed	1916	120,000	50	8,000	1	1	10	0	26 1/2	0	0	4.00	3.00	0	Electric	25
Billings.....	Flour and Feed	1910	200,000	600	138,559	12	23	1	8	26 1/2	26	26	6.00	4.70	3.00	Electric	320
Bozeman.....	Flour and Feed	1892	200,000	600	136,677	25	15	9	0	26 1/2	0	0	4.50	3.50	0	W. & E.	75
Cascade.....	Flour and Feed	1909	100,000	200	45,000	4	6	9	0	26 1/2	0	0	5.00	4.25	0	Coal Oil	250
Chester.....	Flour and Feed	1915	8,000	25	7,500	2	0	11	0	26 1/2	0	0	5.00	0	0	Electric	45
Chinook.....	Flour and Feed	1916	24,000	50	9,000	0	3	10	0	26 1/2	0	0	5.00	0	0	Electric	15
Conrad.....	Flour and Feed	1914	5,000	25	1,000	1	0	10	0	26 1/2	0	0	5.00	4.00	0	Gasoline	15
Crane.....	Flour and Feed	1914	6,000	10	1,000	1	0	8	0	26 1/2	3	0	5.00	0	0	Steam	35
Crow Agency.....	Flour and Feed	1894	7,000	85	1,500	1	1	10	0	26 1/2	0	0	5.00	0	0	Coal Oil	24
Culbertson.....	Flour and Feed	1916	15,000	50	5,000	2	0	9	0	26 1/2	6	0	5.00	0	0	Coal Oil	45
Dillon.....	Flour and Feed	1916	8,000	25	3,400	0	0	10	0	26 1/2	0	0	5.00	0	0	Coal Oil	25
Fort Benton.....	Flour and Feed	1915	8,750	50	10,000	1	1	11	0	26 1/2	9	0	5.00	2.70	0	Electric	45
Gildford.....	Flour and Feed	1915	9,000	25	3,000	0	1	10	0	26 1/2	0	0	4.00	3.50	3.25	Oil Engine	25
Glasgow.....	Flour and Feed	1916	50,000	250	25,086	5	3	1	8	26 1/2	26	26	4.50	0	3.00	Steam	110
Glendive.....	Flour and Feed	1917	50,000	50	15,800	3	1	9	8	26 1/2	0	0	4.50	3.50	3.00	Electric	55
Great Falls.....	Flour and Feed	1915	10,000	25	8,000	1	1	10	0	20 1/4	4	0	5.00	3.85	0	Electric	15
Great Falls.....	Flour and Feed	1917	250,000	1,500	400,000	20	30	8	8	26 1/2	26	26	5.00	4.00	3.00	Electric	500
Great Falls.....	Flour and Feed	1893	400,000	2,000	500,000	12	60	10	0	25 1/2	0	0	6.00	4.00	0	Electric	900
Harlem.....	Flour and Feed	1915	190,000	10	2,700	0	0	8	0	26 1/2	0	0	4.50	0	0	Coal Oil	25
Harlowton.....	Flour and Feed	1916	140,000	675	180,000	13	24	8	0	26 1/2	0	0	4.85	3.65	0	Steam	250
Havre.....	Flour and Feed	1916	18,000	70	2,880	1	2	10	0	26 1/2	0	0	4.50	3.00	0	Nat. Gas	20
Jordan.....	Flour and Feed	1916	10,800	12	2,400	0	0	10	0	26 1/2	0	0	6.50	0	0	Gasoline	25
Kalspell.....	Flour and Feed	1910	50,000	150	10,000	2	1	8	0	26 1/2	0	0	4.50	3.00	0	Electric	60
Kalspell.....	Flour and Feed	1902	200,000	380	75,000	6	14	0	0	26 1/2	0	0	5.00	3.00	0	Steam	200
Lame Deer.....	Flour and Feed	1915	10,000	50	3,000	2	1	8	0	26 1/2	3	0	3.50	2.50	0	Steam	35
Laurel.....	Flour and Feed	1914	26,500	150	3,700	2	2	12	0	26 1/2	0	0	4.50	3.00	0	Electric	75
Lavina.....	Flour and Feed	1914	10,000	25	3,000	1	1	10	0	26 1/2	0	0	5.00	3.50	0	Coal Oil	20
Lewistown.....	Flour and Feed	1912	140,000	375	100,000	7	12	8	0	26 1/2	0	0	4.85	3.65	0	Water	200
Malta.....	Flour and Feed	1916	12,000	50	6,000	1	0	10	0	20 1/2	0	0	4.50	0	0	Coal Oil	25
Melville.....	Flour and Feed	1914	8,000	10	1,000	1	0	10	0	20 1/2	5	0	4.50	0	0	Gasoline	15

	1916	65,000	200	17,500	2	1	2	0	11	0	26 12	0	5.00	3.75	0	Electric	90
Manhattan.....	1916	7,000	25	2,000	1	1	1	7	10	0	26 12	0	5.00	3.25	0	Coal Oil	20
Medicine Lake.....	1901	100,000	800	100,000	10	35	2	7	10	0	26 12	0	5.00	3.60	2.96	Electric	216
Missoula.....	1915	15,000	25	2,920	2	0	0	0	12	0	26 12	0	3.50	0	0	Electric	25
Moore.....	1914	12,000	50	1,000	1	1	0	0	11	0	26 12	0	3.50	0	0	Electric	25
Park City.....	1917	20,000	100	15,000	1	1	1	0	10	0	26 12	0	3.50	0	0	Electric	35
Plains.....	1916	9,000	25	1,000	1	1	1	0	10	0	26 12	0	3.50	0	0	Electric	15
Pleantywood.....	1912	40,000	200	13,500	3	3	3	0	10	0	26 12	0	4.50	3.75	0	Electric	102
Polson.....	1916	25,000	50	2,500	1	2	2	0	10	0	26 12	0	6.00	3.50	0	Gasoline	30
Rosebud.....	1916	10,000	25	2,000	1	1	1	0	12	0	26 12	0	5.00	4.00	0	Electric	29
Roundup.....	1860	4,000	40	300	0	0	2	0	9	0	26 3	0	0	0	0	Water	25
St. Ignatius.....	1915	10,000	12 1/2	1,800	1	1	1	0	12	0	26 10	0	4.00	0	0	Gasoline	15
Sand Springs.....	1912	11,900	25	1,200	1	1	1	0	10	0	26 12	0	3.50	2.85	0	Coal Oil	50
Savage.....	1914	15,000	65	7,500	2	3	3	0	10	0	27 12	0	4.00	3.50	0	Steam	60
Scobey.....	1913	50,000	350	55,377	5	13	13	0	10	0	25 12	0	4.00	3.50	0	Steam	150
Sidney.....	1917	1,000	2	200	1	1	0	0	10	0	26 12	0	4.00	0	0	Gasoline	8
Slims.....	1914	20,000	50	3,000	1	1	2	0	10	0	26 8	0	5.00	3.00	0	Electric	35
Townsend.....	1913	60,000	220	36,000	2	7	7	1	9	0	26 12	0	5.00	3.75	2.50	Electric	300
Three Forks.....	1915	50,000	250	50,000	3	6	6	2	10	8	26 11	26	6.00	4.00	2.50	Electric	75
Walsall.....	1914	5,000	12	1,500	0	1	1	0	10	0	26 5	0	0	0	0	Gasoline	15
Wolf Point.....	1914	1,000	50	3,000	1	1	1	0	11	0	26 12	0	4.00	3.50	0	Gasoline	15
Total.....		\$3,007,460	11,226	2,118,399	194	311	311	17	9 3/4	8	26 10 1/4	26	\$4.70	\$3.46	\$2.45		5,312
*Bozeman.....	1910	200,000	60	18,863	25	16	16	0	9	0	26 12	0	3.75	3.25	0	Steam	125

*Cereal mill.

TABLE NO. 15—MONTANA MANUFACTURES. CREAMERIES.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Pounds	Yearly Output Pounds	Males Employed Skilled	Males Employed Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda	Butter	1916	\$ 20,000	1,600	19,200	0	4	1	8	8	30 12	26	0	\$4.50	\$1.92	Electric	9
Baker	Butter	1906	1,000	150	20,000	1	0	0	10	0	26 6	0	4.00	0	0	Steam	18
Bellevue	Butter	1915	1,800	400	20,000	1	0	0	8	0	26 12	0	4.00	0	0	Steam	10
Big Timber	Butter	1915	3,000	400	125,000	1	0	0	10	0	26 12	0	4.50	3.50	0	Steam	10
Billings	Butter	1911	28,000	900	288,000	2	7	3	9	8	26 12	26	5.00	4.00	2.00	E. & S.	13 1/2
Billings	Butter	1911	25,000	150	45,000	1	0	0	9	8	26 12	26	4.00	0	3.27	E. & S.	7
Billings	Butter	1918	15,000	1,000	20,000	3	1	1	9	8	30 12	30	5.62	3.40	2.25	Electric	15
Bozeman	Butter	1914	5,000	250	100,000	2	2	0	10	0	26 12	0	4.00	2.50	0	Electric	5
Brockway	Butter	1918	3,000	150	40,000	1	0	1	10	8	26 12	26	4.50	0	2.00	Gas	4 1/2
Butte	Butter	1904	200,000	200	60,000	8	5	0	8	0	26 12	0	5.50	4.50	0	Electric	85
Butte	Butter	1889	1,000,000	6,000	1,650,000	40	20	5	9	8	26 12	0	5.75	3.50	2.00	Electric	300
Cascade	Butter	1906	6,000	300	110,000	1	1	0	10	0	26 12	0	5.75	4.00	0	Electric	12
Chinook	Butter	1903	5,000	100	16,000	1	0	0	9	0	26 12	0	3.85	0	0	Steam	12
Clyde Park	Butter	1914	1,000	250	33,000	1	0	0	9	0	26 12	0	4.75	0	0	Steam	6
Culbertson	Butter	1905	8,500	800	100,000	2	0	0	9	0	26 12	0	4.50	0	0	Steam	26
Eden	Butter	1913	7,000	120	15,000	2	0	0	10	0	26 12	0	4.75	0	0	Steam	12
Forsyth	Butter	1905	4,300	1,000	70,000	1	0	0	8	0	26 12	0	4.00	0	0	Steam	6
Fort Benton	Butter	1915	16,000	1,500	53,269	2	0	0	10	0	26 12	0	4.07	0	0	Steam	12
Fort Benton	Butter	1916	1,700	100	30,000	1	0	0	10	0	26 12	0	5.00	3.00	0	Steam	15
Froid	Butter	1918	5,000	1,000	60,000	1	1	0	8	0	20 4	0	6.00	0	0	Steam	10
Geyser	Butter	1916	5,000	150	35,000	1	0	0	8	0	25 12	0	4.00	0	0	Steam	8
Great Falls	Butter	1907	15,000	1,000	115,000	1	2	0	8	0	26 12	0	4.75	0	0	Electric	12
Great Falls	Butter	1916	10,000	300	30,000	1	3	0	8	8	26 12	0	5.00	4.00	0	Electric	15
Great Falls	Butter	1916	30,000	5,000	300,000	4	18	3	9	8	26 12	26	5.50	4.00	2.00	Electric	87
Hamilton	Butter	1917	2,500	44,869	44,869	1	1	0	10	0	26 12	0	6.00	3.00	0	Electric	5
Hardin	Butter	1918	3,500	200	50,000	1	1	0	10	0	28 12	0	4.00	3.25	0	Gasoline	15
Havre	Butter	1914	12,000	800	79,000	1	1	1	8	8	26 12	26	4.00	3.00	2.00	Electric	9
Helena	Butter	1913	7,500	1,000	115,000	2	1	1	8	0	26 12	0	4.50	3.50	0	Electric	10
Helena	Butter	1917	10,000	25	5,000	1	0	0	8	0	26 12	0	4.50	0	0	Electric	13
Hot Springs	Butter	1916	3,000	100	18,000	1	0	0	8	0	26 12	0	5.00	0	0	Steam	6
Kalspell	Butter	1916	6,000	500	36,000	2	5	0	9	0	26 12	0	4.50	2.50	0	Electric	24
Jump Gap	Butter	1916	2,500	100	40,000	1	0	0	8	0	26 12	0	4.50	0	0	Electric	7
Laurel	Butter	1918	9,000	1,000	100,000	2	2	0	9	0	26 12	0	4.50	3.00	0	Electric	5
Lewistown	Butter	1917	7,500	500	44,457	1	1	0	9	0	26 12	0	4.00	3.50	0	Electric	10
Lewistown	Butter	1914	20,000	1,000	100,000	1	1	1	9	8	26 12	26	4.00	3.50	2.00	Electric	20
Livingston	Butter	1914	10,500	1,000	100,000	1	1	0	8	0	26 12	0	6.00	2.50	0	Electric	25

	1913	7,300	1,000	65,000	1	1	0	10	0	26 12	0	4.00	2.50	0	Electric	20
Manhattan.....	1915	15,000	1,000	95,000	1	1	0	10	0	26 12	0	4.00	2.50	0	Electric	15
Miles City.....	1917	8,000	1,000	126,000	3	3	2	9	0	26 12	26	4.50	3.50	3.27	Electric	7 1/2
Missoula.....	1915	65,000	1,500	100,000	4	8	2	8	8	26 12	0	4.40	3.06	3.00	Electric	25
Phillipsburg.....	1911	1,000	1,000	16,000	1	0	0	8	0	26 12	0	4.00	0	0	Electric	8
Plentywood.....	1917	12,000	500	50,000	1	0	0	8	0	30 8	0	5.00	0	0	Steam	12
Poncha.....	1912	2,000	1,000	65,000	1	0	0	8	0	26 12	0	4.50	0	0	Electric	12
Red Lodge.....	1908	2,550	400	20,000	1	0	0	8	0	26 12	0	4.00	0	0	Electric	6
Rye Gate.....	1907	4,600	500	130,000	2	1	0	8	8	26 12	26	4.80	3.33	0	Electric	20
Saco.....	1918	4,000	500	75,000	1	0	0	10	0	26 12	0	5.00	0	0	Steam	10
Stevensville.....	1907	7,300	2,000	350,000	2	8	1	10	8	26 12	26	8.00	3.00	2.50	Electric	10
Townsend.....	1904	5,500	1,000	169,122	1	1	1	8	6	26 12	26	6.00	3.00	2.00	Electric	10
Whitchall.....	1917	9,000	1,000	75,000	1	1	0	8	0	26 12	0	6.00	3.00	0	Electric	15
Wilsall.....	1917	4,000	150	30,000	1	0	0	10	0	26 12	0	3.50	0	0	Electric	6
Worden.....	1917	4,100	800	90,000	2	0	0	8	0	26 12	0	4.50	0	0	Steam	15
Total.....		\$1,677,250	42,995	5,652,917	119	104	23	9	8	26 12	26	\$4.70	\$3.27	\$2.33		1,072 1/2

LABOR AND INDUSTRY

TABLE NO. 16—MONTANA MANUFACTURES. MEAT PACKING AND SLAUGHTERING PLANTS.

Postoffice	Goods Manu- factured or Hauled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed Skilled	Males Employed Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda	Meats	1901	\$ 120,000	** 12 35 8***	4,200 9,800 3,000	5	5	0	8	0	26 12	0	\$4.75	\$3.00	0	Electric	50
Billings	Meats	1911	30,000	** 7 12***	1,700 3,500 7***	5	2	0	9	0	26 12	0	5.00	3.00	0	Electric	40
Butte	Meats	1912	300,000	** 150 500***	8,131 15,373 8,507	30	15	4	9	8	26 12	26	6.00	4.50	2.50	Electric	333
Butte	Meats	1910	20,000	** 70 20***	5,500 20,000 6,000	10	5	0	0	8	26 12	0	6.00	4.50	0	Electric	60
Chinook	Meats	1914	25,000	** 30 2***	500 2,100 450	4	1	0	10	0	26 12	0	4.50	3.50	0	Steam	10
Gardiner	Meats	1909	9,200	** 6 15***	750 1,100 3,800	7	12	2	10	8	26 12	0	4.50	2.50	2.50	Steam	10
Great Falls	Meats	1897	250,000	** 10 80***	3,000 4,000 5,800	45	8	4	10	8	26 12	26	4.60	3.00	2.00	Electric	172
Helena	Meats	1901	30,000	** 15 10***	800 3,800 1,546	10	2	0	9	8	26 12	26	5.00	4.00	0	.....	.....
Missoula	Meats	1910	75,000	** 30 3***	1,385 2,981 1,000	15	10	1	10	8	26 12	26	4.00	3.50	2.75	Electric	20
Woodside	Meats	1913	15,000	** 10 10***	1,000 1,900 1,000	2	0	0	9	0	26 12	0	5.25	0	0	Steam	10
Total			\$ 874,200	** 225 700***	26,927 58,617 35,988	133	60	11	9½	8	26 12	26	\$4.96	\$3.50	\$2.44		705

*Beefes. **Sheep. ***Hogs.

TABLE NO. 17—MONTANA MANUFACTURES. BRICK AND CLAY PRODUCTS.

Postoffice	Goods Manufactured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed	Unskilled Males Employed	Hours per Day	Hours per Day Females	Days per Month	Days per Month Females	Av. Wage per Day, Skilled	Av. Wage per Day, Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda.....	Bldg. & Fire Brick	1890	\$ 222,638	45,000	8,725,677	19	65	8	1	26	12	\$5.50	\$4.50	\$3.75	Electric	200
Billings.....	Brick	1917	18,000	25,000	2,500,000	12	12	8	0	26	5	5.00	4.00	0	Electric	52
Butte.....	Brick & Sewer Pipe	1887	10,000	40,000	5,500,000	40	20	8	0	30	5	5.00	4.50	0	Electric	100
Columbus.....	Brick	1889	3,500	20,000	300,000	2	6	8	1	26	2	5.00	3.50	2.00	Horse	2
Forsyth.....	Brick	1913	2,000	10,000	300,000	2	7	9	0	26	6	5.00	3.50	0	Horse	2
Fromberg.....	Pressed Brick	1907	50,000	22,000	4,000,000	15	15	9	0	26	8	5.50	4.00	0	Horse	165
Great Falls.....	Bldg. & Fire Brick	1907	80,654	68,000	9,550,000	2	40	9	0	23	12	5.72	4.59	0	Electric	205
Great Falls.....	Brick	1917	155,600	18,000	2,372,300	2	15	8	0	26	10	5.50	4.35	0	Electric	193
Hamilton.....	Brick	1909	6,000	10,000	1,000,000	2	5	8	0	26	6	7.00	4.00	0	Horse	40
Havre.....	Brick	1916	20,000	14,000	800,000	1	5	8	0	26	6	4.50	3.50	0	Electric	200
Helena.....	Clay Products	1905	60,000	6,000	1,500,000	10	40	8	0	26	10	5.50	4.50	0	Electric	17
Kalispell.....	Brick	1914	4,750	6,000	230,000	2	6	8	0	26	4	5.00	3.50	0	Electric	100
Lewistown.....	Brick & Tile	1901	75,000	20,000	1,000,000	11	8	8	0	26	7	4.50	4.00	0	Electric	35
Miles City.....	Brick	1913	11,000	20,000	3,500,000	4	16	9	0	26	5	4.50	4.00	0	Electric	30
Missoula.....	Brick	1909	10,000	30,000	1,800,000	3	20	8	0	22	8	4.50	4.00	0	Electric	2
Musselshell.....	Brick	1910	5,000	10,000	400,000	8	6	9	0	26	3	5.00	4.50	0	Horse	50
Whitefish.....	Brick	1903	5,000	10,000	600,000	1	5	10	0	26	3	5.00	4.00	0	Electric	1,393
Total.....			\$ 730,202	448,000	62,077,977	126	291	8½	2	26	7	\$5.16	\$4.06	\$2.87		

*Feet of sewer pipe.

†Tile.

Note: In addition to the yearly output of brick, there is a yearly output of 1,500,000 feet of sewer pipe.

TABLE NO. 18—MONTANA MANUFACTURES. CHEESE FACTORIES.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity Pounds	Yearly Output Pounds	Males Employed Skilled	Males Employed Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per Month Males	Days per Month Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Ballantine.....	Cheese	1916	\$ 2,650	500	40,000	1	0	0	0	0	30 1/2	0	0 \$3.33	0	0	0 Steam	10
Belgrade.....	Cheese	1916	4,000	3,000	70,000	1	0	0	0	0	30 1/2	0	0 4.00	0	0	0 Electric	9
Corvallis.....	Cheese	1914	7,000	8,000	240,000	1	2	0	0	0	30 1/2	0	0 5.00	0 \$4.00	0	0 Steam	20
Salesville.....	Cheese	1915	5,000	9,000	100,000	2	0	0	0	0	30 1/2	0	0 4.00	0	0	0 Gasoline	6
Sedan.....	Cheese	1917	1,000	500	50,000	1	0	0	0	0	30 1/2	0	0 4.00	0	0	0 Steam	8
Willow Creek.....	Cheese	1915	2,000	1,500	200,600	1	0	0	7	0	25 1/2	6	0 4.00	0	0	0 Steam	10
	Total.....		\$ 21,650	18,500	700,600	8	2	0	7	0	29 1/2	11	0 \$4.06	0 \$4.00	0		

TABLE NO. 19—MONTANA MANUFACTURES. MONUMENTAL WORKS.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed Skilled	Males Employed Unskilled	Hours per Day Males	Hours per Day Females	Days per Month	Months Per Year	Days per Month Females	AV. Wage per Day Skilled	AV. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Billings.....	Cemetery Supplies	1911	\$ 12,276	\$ 150	14,026	1	2	0	0	26	8	26	\$6.00	\$4.00	0	Alr	5
Butte.....	Cemetery Supplies	1903	53,000	250	75,375	10	6	1	8	26	12	26	6.50	4.00	\$3.25	Electric	42
Butte.....	Cemetery Supplies	1911	20,000	100	30,000	8	2	0	8	22	8	22	6.50	4.25	0	Electric	15
Columbus.....	Cemetery Supplies	1915	5,000	150	15,000	1	1	0	8	26	12	0	6.00	4.00	0	Electric	75
Great Falls.....	Cemetery Supplies	1903	8,000	35	10,000	1	1	0	8	26	10	0	5.00	3.75	0	Electric	2
Havre.....	Cemetery Supplies	1909	8,000	150	12,000	1	0	0	8	26	12	0	6.00	0	0	Electric	3
Helena.....	Cemetery Supplies	1907	3,000	50	2,000	1	1	0	8	26	6	0	6.00	0	0	Electric	75
Helena.....	Cemetery Supplies	1888	20,000	150	30,000	20	8	0	8	26	12	0	6.00	4.00	0	Electric	.....
Lewistown.....	Cemetery Supplies	1913	7,000	50	9,000	1	0	0	8	26	6	0	6.00	0	0	.....	.....
Livingston.....	Cemetery Supplies	1907	20,000	38	8,000	2	1	0	8	26	8	0	6.00	3.50	0	Electric	30
Livingston.....	Cemetery Supplies	1916	4,000	15	5,000	1	0	0	8	26	7	0	6.00	0	0	Electric	15
Missoula.....	Cemetery Supplies	1908	15,000	100	18,000	3	0	0	8	26	12	0	6.00	0	0	Electric	3
Missoula.....	Cemetery Supplies	1899	5,000	20	3,880	2	0	0	8	26	12	0	6.00	0	0	Electric	.....
Total.....			\$ 180,276	\$ 1,294	\$ 232,281	52	22	1	8	26	9 3/4	26	\$6.00	\$3.93	\$3.25	Electric	265 1/2

TABLE NO. 20—MONTANA MANUFACTURES. MISCELLANEOUS INDUSTRIES.

Postoffice	Goods Manu- factured or Handled	Date When Established	Capital Invested	Daily Capacity	Yearly Output	Males Employed	Skilled	Males Employed	Unskilled	Employed	Hours per Day	Hours per Day Males	Hours per Day Females	Days per Month	Months Per Year	Days per Month Females	Av. Wage pe Day, Skilled	Av. Wage per Day, Unskilled	Wages Females	Kind of Power	Horse Power Number of	
Albright.....	Lime Rock	1910	\$ 50,000*	800*	13,623	1	1	5	0	8	8	0	0	26 12	12	26 12	0	\$4.50	\$4.50	0	Water	50
Anacanda.....	Lime Rock	1906	120,000*	1,500*	468,214	19	19	35	30	8	8	8	8	30 12	4	30 12	5.25	4.35	\$1.25	Electric	345	
Bass Spur.....	Canned Goods	1915	30,000	1,000	100,000	4	4	20	8	8	8	8	8	26 4	6	26 4	4.50	3.50	1.25	Steam	35	
Belgrade.....	Culverts	1914	8,500	1,140	19,000	3	3	2	0	9	0	0	0	26 6	6	26 6	4.50	3.25	0	Electric	25	
Billings.....	D. & Med. Alcohol	1916	80,000	5,560	25,000	8	8	0	1	9 1/2	8	0	0	26 10	3	26 10	4.50	3.75	3.00	Steam	350	
Billings.....	Ref. Beet Sugar	1906	1,328,800	110	522,600	100	429	47	10	8	8	8	8	30 3	3	30 3	4.50	3.50	2.82	Steam	4,800	
Billings.....	Gen. Mill Work	1916	15,000	110	33,000	7	3	3	5	10	8	0	0	26 12	3	26 12	4.50	3.50	2.00	Electric	4,400	
Billings.....	Clothes & Knaut	1918	10,000	125	25,000	2	2	3	1	8	8	0	0	26 12	3	26 12	4.25	3.75	3.00	Electric	5	
Billings.....	Gen. Mill Work	1912	20,000	579	40,000	9	9	0	0	9	0	0	0	26 12	3	26 12	5.00	3.75	3.00	Electric	38	
Bonner.....	Box Factory	1898	64,248	267	115,544	16	10	3	0	9	0	0	0	26 12	3	26 12	4.25	2.75	0	Steam	160	
Bozeman.....	Hides Tanned	1898	10,600	267	31,967	8	8	0	0	9	0	0	0	26 12	3	26 12	4.25	2.75	0	Steam	50	
Butte.....	Tents & Awnings	1909	600	100	3,000	1	1	0	1	8	8	0	0	26 6	6	26 6	5.00	0	2.00	Electric	8	
Butte.....	Tents & Awnings	1916	1,000	15	6,000	1	1	0	1	8	8	0	0	26 6	6	26 6	5.00	0	2.00	Electric	8	
Butte.....	Tents & Awnings	1916	30,000	14	7,500	1	1	0	1	10	8	0	0	26 12	3	26 12	5.00	0	2.00	Electric	58	
Butte.....	Macaroni, etc.	1913	10,000	25	35,403	2	2	1	4	8	8	0	0	26 12	3	26 12	5.00	2.00	2.50	Electric	18	
Columbia Falls	Box Factory	1917	45,000	400	90,000	2	2	14	1	10	8	0	0	26 12	3	26 12	5.00	3.50	3.00	Electric	165	
Columbus.....	Sand & Gr'dstones	1897	50,000*	100*	32,000	25	5	5	0	8	0	0	0	26 9	9	26 9	6.00	3.50	0	Steam	60	
Dillon.....	Silica Rock	1887	25,500	100	5,000	0	0	3	0	8	0	0	0	26 6	6	26 6	0	4.00	0	Electric	5	
Elliston.....	Lime	1890	100	115	30,000	4	4	6	0	8	0	0	0	26 10	0	26 10	0	4.00	0	Electric	5	
Fromberg.....	Culverts	1912	6,000	115	140,000	2	2	4	0	9	0	0	0	26 4	4	26 4	4.50	4.00	0	Gasoline	6 1/4	
Fromberg.....	Vinegar	1908	5,000	50	5,000	1	1	0	1	8	8	0	0	26 6	6	26 6	5.00	0	2.75	Electric	45	
Great Falls.....	Tents & Awnings	1916	1,000	35	5,000	1	1	0	1	8	8	0	0	26 6	6	26 6	5.00	0	2.00	Electric	45	
Great Falls.....	Matresses	1917	16,500	100	20,000	4	4	8	3	8	8	0	0	26 12	3	26 12	4.50	2.75	2.00	Electric	122	
Great Falls.....	Artificial Ice	1914	8,400*	15*	2,923	0	8	6	1	8	8	0	0	26 8	8	26 8	0	3.50	0	Electric	122	
Great Falls.....	Building Stone	1903	8,000*	14*	3,923	0	8	6	1	8	8	0	0	26 8	8	26 8	0	3.50	0	Electric	50	
Great Falls.....	Gypsum Products	1908	19,898*	200*	54,213	40	0	0	0	8	0	0	0	20 12	0	20 12	3.25	0	0	Electric	150	
Hamilton.....	Sash, Doors, M.W.K.	1895	30,000	87	2,672	2	2	0	0	9	0	0	0	20 2	2	20 2	3.48	0	0	Steam	5	
Helena.....	Rugs	1912	3,000	50	10,000	6	1	0	0	10	0	0	0	26 12	0	26 12	4.56	3.00	0	Electric	150	
Helena.....	Rubber Stamps	1904	5,000	15	4,500	2	2	0	0	8	0	0	0	26 12	0	26 12	5.00	0	0	Electric	5	
Helena.....	Tents & Awnings	1898	1,000	10	2,000	1	1	0	0	8	0	0	0	26 12	0	26 12	0	3.25	0	Electric	100 1/2	
Helena.....	Soaps & Candles	1888	50,000	5,000	1,400,000	2	2	10	0	8	0	0	0	26 12	0	26 12	0	0	0	Electric	2	
Helena.....	Crackers	1883	1,500	240	2,200	0	2	0	0	8	0	0	0	26 12	0	26 12	0	0	0	Electric	100	
Helena.....	Crackers	1891	20,000	970	210,000	12	12	30	8	8	8	0	0	26 11	0	26 11	4.50	3.50	1.50	Steam	100	
Lewistown.....	Plaster	1916	80,000*	100*	14,000	1	44	0	8	0	0	0	0	26 11	0	26 11	7.00	3.50	0	Electric	300	
Lewistown.....	Cement	1917	1,000,000*	1,000*	34,000	5	60	0	8	0	0	0	0	26 12	0	26 12	4.50	3.50	0	Electric	1,000	
Lime Spur.....	Lime Rock	1909	25,000*	1,500*	68,379	6	3	0	0	9	0	0	0	26 12	0	26 12	4.50	3.50	0	Steam	50	
Miles City.....	Harness & Saddles	1909	50,000*	250	75,000	10	0	0	0	9	0	0	0	26 12	0	26 12	5.00	0	0	Electric	2	
Miles City.....	Harness & Saddles	1900	25,000	168	50,000	5	0	0	0	9	0	0	0	26 12	0	26 12	5.00	0	0	Electric	1 1/2	
Montana.....	Cement	1910	2,000,000	2,300	650,000	10	130	0	0	11	0	0	0	26 12	0	26 12	6.75	3.50	0	Electric	2,500	
Total.....			\$5,255,054			337	829	128		8%	8			26 10		26 10	\$4.78	\$3.38	\$2.28		10,652 1/2	

*Tons.

†Cases.

‡Bags.

\$Barrels.

oPounds.

**Piece Work.

THIRD BIENNIAL REPORT

139

Postoffice	Goods manu- factured or Handled	Date when Established	Capital Invested	Daily Capacity Tons Ore	Yearly Output Tons Ore	Males Employed Skilled	Males Employed Unskilled	Hours per Day Males	Hours per Day Females	Days per Month Males	Months per Year	Days per Month Females	Average Wage Per Day Skilled	Average Wage Per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power	
Anaconda.....	Smelt., Zinc Cont.	1902	\$12,500,000	15,000 † 2,000	4,680,000 † 128,400	1,578	1,510	16	8	8	30	12	26	\$5.46	\$4.46	\$3.52	Electric	18,000
Basin.....	Zinc, Lead, Ore Con.	1915	100,000	150	29,844	20	32	1	8	8	30	12	26	4.85	4.00	3.27	Electric	440
Basin.....	Copper Concent'r	9116	100,000	160	3,850	15	60	0	8	0	30	12	0	6.00	4.44	0	Electric	175
Butte.....	Copper Smelter	1907	600,000	25	9,000	117	154	0	8	0	30	12	0	6.05	4.27	0	E. & S.	2,750
Butte.....	Zinc Concentrator	1912	2,500,000	1,800	489,177	517	46	0	8	0	30	12	0	5.05	4.27	0	Electric	3,000
Butte.....	Sampler	1904	121,000	1,500	223,504	5	23	0	8	0	30	12	0	5.90	4.70	0	Electric	90
Butte.....	Leaching Plant	1912	250,000	300	48,900	52	8	0	8	0	30	12	0	5.65	4.75	0	Electric	300
Cook.....	Copper Smelter	1917	350,000	300	7,200	70	28	0	8	0	30	12	0	5.10	4.00	0	Steam	1,070
Corbin.....	Concentrator	1907	130,000	20	6,000	10	0	0	8	0	30	12	0	4.50	4.00	0	Electric	700
Deer Lodge.....	Gold Stamp Mill	1910	20,000	100	6,000	5	10	0	8	0	30	3	26	4.25	3.50	4.00	Steam	175
East Helena.....	Smelter & Conc't'r	1889	500,000	300	50,000	317	95	1	8	8	30	12	26	4.25	3.50	4.00	Electric	750
Great Falls.....	Smelter	1889	1,750,000	3,500	1,100,000	183	158	0	8	0	30	12	0	5.49	4.50	0	Electric	6,000
Great Falls.....	Copper Refinery	1892	1,300,000	350	8,960	124	233	0	8	0	30	12	0	5.38	4.50	0	Electric	7,000
Great Falls.....	Electro. Zinc Plant	1916	3,500,000	150	72,807	144	213	0	8	0	30	12	0	5.66	4.50	0	Electric	22,000
Helena.....	Concentrator	1915	30,000	225	36,000	9	3	0	8	0	30	6	0	5.00	4.25	0	Electric	80
Helena.....	Concentrator	1916	40,000	75	15,000	10	10	0	8	0	30	12	0	5.00	4.00	0	Electric	100
Iron Mount'n.....	Concentrator	1916	60,000	60	2,400	6	0	0	8	0	30	3	0	5.00	4.00	0	Water	100
Kendall.....	Gold Stamp Mill	1915	100,000	200	27,909	5	7	0	8	0	30	8	0	5.00	4.00	0	Electric	175
Landusky.....	Cyanide Plant	1914	100,000	200	65,400	26	41	0	8	0	30	12	0	5.00	4.00	0	Electric	900
Malden.....	Cyanide Plant	1915	200,000	70	25,200	5	20	0	8	0	30	12	0	5.00	4.00	0	Steam	160
Marysville.....	Cyanide Plant	1901	100,000	160	54,228	11	9	0	8	0	30	12	0	5.00	4.00	0	Electric	300
Marysville.....	Stamp Mill	1911	25,000	40	12,000	3	2	0	8	0	30	12	0	5.00	4.00	0	Electric	85
Pony.....	Stamp Mill	1909	10,000	20	2,500	3	11	0	8	0	30	5	0	5.00	3.50	0	Water	100
Sheridan.....	Stamp Mill	1917	50,000	50	15,000	10	3	0	8	0	30	12	0	5.00	4.00	0	Electric	570
Virginia City.....	Stamp Mill	1902	40,000	15	3,000	1	4	0	8	0	30	12	0	8.00	4.00	0	Electric	15
Zortman.....	Cyanide Plant	1904	100,000	600	182,300	14	82	0	8	0	30	12	0	5.00	4.00	0	Electric	500
Total.....			\$24,536,000	25,720	7,088,412	3,325	2,768	18	8	8	30	10½	26	\$5.29	\$4.16	\$3.50		65,535

†128,000 tons of blister copper shipped to refiners to be refined.

‡Zinc concentrates shipped to company's electrolytic zinc plant, Great Falls, for treatment.

§Production of converter copper. The greater portion of this copper was refined at Great Falls, the remainder shipped east for refining. Converter copper contained 682,679 ounces of silver and 5,874 ounces of gold.

*Tons of electrolytic cathode copper.

**Tons of furnace refinery copper. In addition to the above, 5,717,130.25 ounces of silver were produced, and 37,078,606 ounces of gold.

††Tons of electrolytic zinc slabs.

‡‡Tons of zinc produced in dross, shipped from east for treatment. Above production represents a period from October 1, 1916, to October 31, 1917. Mines and other plants were closed for four months on account of strike.

TABLE NO. 21—REPORT OF THE MONTANA STATE HOSPITAL FOR THE INSANE, FOR THE FISCAL YEAR 1917.

Counties from which patients were received and number of patients from each county.

County	Male	Female	Total
Beaverhead	17	5	22
Big Horn	1		1
Blaire	4	4	8
Broadwater	2	1	3
Carbon	14	7	21
Cascade	47	24	71
Chouteau	17	5	22
Custer	14	7	21
Dawson	14	9	23
Deer Lodge	41	22	63
Fallon	1	3	4
Fergus	24	14	38
Flathead	21	2	23
Gallatin	29	6	35
Gallatin	29	6	35
Granite	13	3	16
Hill	6	2	8
Jefferson	27	2	29
Lewis and Clark	69	43	112
Lincoln	4	2	6
Madison	16	5	21
Meagher	15	4	19
Mineral	10		10
Missoula	40	20	60
Musselshell	3	1	4
Park	7	8	15
Phillips	4	1	5
Powell	10	1	11
Prairie		2	2
Ravalli	9	6	15
Richland	4	2	6
Rosebud	5	3	8
Sanders	5	3	8
Sheridan	9	2	11
Stillwater	3	2	5
Silver Bow	171	60	231
Sweet Grass	8		8
Teton	19	6	25
Toole	2		2
Valley	12	6	18
Wheatland	1		1
Wilboux	1	1	2
Yellowstone	36	11	47
Penitentiary	17		17
Voluntarily committed	5	3	8
Total	777	314	1,091

TABLE NO. 22—REPORT OF THE MONTANA STATE HOSPITAL FOR THE INSANE, FOR THE FISCAL YEAR 1918.

Counties from which patients were received and number of patients from each county.

County	Male	Female	Total
Beaverhead	15	5	20
Big Horn	3	1	4
Blaine	10	4	14
Broadwater	4	2	6
Carbon	17	5	22
Cascade	59	17	76
Chouteau	21	4	25
Custer	14	11	25
Dawson	16	9	25
Deer Lodge	43	23	66
Fallon	2	2	4
Fergus	20	16	36
Flathead	23	10	33
Gallatin	30	8	38
Granite	15	3	18
Hill	10	2	12
Jefferson	30	3	33
Lewis and Clark	82	36	118
Lincoln	3	4	7
Madison	18	5	23
Meagher	16	4	20
Mineral	9	1	10
Missoula	42	23	65
Musselshell	4	5	9
Park	12	7	19
Phillips	6	3	9
Powell	14	1	15
Prairie	1	4	5
Ravalli	11	8	19
Richland	7	2	9
Rosebud	5	4	9
Sanders	3	2	5
Sheridan	7	3	10
Stillwater	3	2	5
Silver Bow	178	70	248
Sweet Grass	10	.....	10
Teton	20	8	28
Toole	2	.....	2
Valley	15	6	21
Wheatland	1	1	2
Wibaux	2	2	4
Yellowstone	39	17	56
Penitentiary	10	1	11
Voluntarily committed	13	3	16
Total	865	347	1,212

TABLE NO. 23—MOVEMENT OF POPULATION OF STATE HOSPITAL FOR THE INSANE, FROM DECEMBER 1, 1916, TO NOVEMBER 30, 1917.

	Male	Female	Total
Number in hospital beginning fiscal year.....	757	310	1,067
Number admitted during fiscal year.....	444	139	583
Total treated	1,201	449	1,650
Discharged recovered.....	129	21	150
Discharged improved.....	105	65	170
Deaths	147	49	196
Escaped	43		43
Total discharged.....	424	135	559
Total treated	1,201	449	1,650
Total in hospital end of fiscal year.....	777	314	1,091

TABLE NO. 23—MOVEMENT OF POPULATION OF STATE HOSPITAL FOR THE INSANE, FROM DECEMBER 1, 1917, TO NOVEMBER 30, 1918.

	Male	Female	Total
Number in hospital beginning fiscal year.....	777	314	1,091
Number admitted during fiscal year.....	436	154	590
Total treated	1,213	468	1,681
Discharged recovered.....	84	23	107
Discharged improved.....	94	52	146
Deaths	97	46	143
Escaped	73		73
Total discharged.....	348	121	469
Total treated.....	1,213	468	1,681
Total in hospital end of fiscal year.....	865	347	1,212

TABLE NO 24—STATISTICS OF WAGE EARNERS. AVERAGE WAGES OF ORGANIZED EMPLOYES IN MONTANA.

(Compiled from Various Wage Scales Adopted by Labor Organizations)

Occupation	Average Wage per Day 1914	Average Wage per Day 1918	Per Cent Increase 1918 Over 1914
Bakers	\$ 4.25	\$ 6.25	47
Barbers	3.33 $\frac{1}{3}$	4.40	32
Bartenders	3.65	5.00	39 $\frac{2}{3}$
Blacksmiths	4.50	6.50	44
Boilermakers	4.15	6.50	56 $\frac{1}{4}$
Brewery Workmen	4.58	5.33 $\frac{1}{3}$	16 $\frac{2}{3}$
Brickmasons and Plasterers	7.16 $\frac{2}{3}$	8.00	11 $\frac{2}{3}$
Bridge and Structural Iron Workers	4.00	6.75	68 $\frac{3}{4}$
Building Laborers	3.50	5.50	57 $\frac{1}{2}$
Butchers and Meat Cutters	4.50	5.50	22 $\frac{1}{4}$
Carpenters	5.00	7.00	40
Cement Finishers	5.50	8.00	45 $\frac{1}{2}$
Cement Helpers	4.00	6.00	50
Cement Makers	3.55	4.40	24 $\frac{1}{2}$
Chambermaids (Room and Board Included)	1.00	1.16 $\frac{2}{3}$	16
Cigar Makers	4.23	5.00	17
Coal Miners	3.00	4.50	50
Common Laborers	3.00	4.50	50
Cooks, Head (Board Included)	3.38 $\frac{1}{3}$	5.00	48
Cooks, Second (Board Included)	2.65	4.00	51
Cooks, Third (Board Included)	2.02 $\frac{1}{2}$	3.00	48 $\frac{1}{2}$
Dishwashers	1.53 $\frac{1}{3}$	2.35	53 $\frac{3}{4}$
Electrical Workers	4.83	7.00	45
Flour and Cereal Mill Employes	3.75	5.05	35
Job Compositors	4.25	5.90	39
Lathers, Wood, Wire and Metal	6.50	8.00	23 $\frac{1}{4}$
Laundry Workers	2.45	2.70	10 $\frac{1}{4}$
Leather Workers			
Linotype Operators	5.11	5.90	15 $\frac{1}{2}$
Metalliferous Miners	3.50	5.75	64 $\frac{1}{3}$
Mill and Smeltermen	3.50	5.00	43
Moulders	4.25	7.25	70
Moving Picture Operators	4.30	5.00	16 $\frac{1}{4}$
Musicians (Per Hour)	1.00	2.00	100
Painters and Paperhangers	4.93 $\frac{2}{3}$	6.35	28 $\frac{1}{2}$
Plumbers	7.00	7.50	7 $\frac{1}{4}$
Printing Pressmen	4.50	5.50	22 $\frac{1}{4}$
Railroad Machinists	4.05	6.12	50
Retail Clerks	3.35	5.00	49 $\frac{1}{3}$
Sheet Metal Workers	4.50	6.00	50
Stationary Engineers	4.00	5.00	25
Stereotypers	5.00	6.00	20
Street Railway Employes	3.15	4.60	46
Tailors	4.00	4.25	6 $\frac{1}{4}$
Teamsters	3.25	4.50	38 $\frac{1}{2}$
Telephone Operators			
Waiters, Male (Board Included)	2.33 $\frac{1}{3}$	3.25	43 $\frac{3}{4}$

Note: Barbers receive a guarantee of from \$21 to \$24 per week and 60 per cent of receipts over \$35.

Coal miners are paid by the ton, the scale varying in the different mines and fields, depending upon the opportunity for getting out coal and the general working conditions.

Linotype operators work 7 $\frac{1}{2}$ hours on newspaper composition and 8 hours on job work.

Musicians are paid a uniform wage of \$2.00 per hour.

The wages of telephone operators vary, depending on the length and period of service.

LABOR AND INDUSTRY

TABLE NO. 25—ASSESSMENT OF PROPERTY. TOTAL VALUATION OF STATE BY COUNTIES.

Value Fixed by the Assessors of the Various Counties and Equalized by the Boards of County Commissioners for the Year 1918										
Farm and Grazing Land	Value per Acre	Value	Improvements on the Foregoing	All Other Real Estate	Livestock	All Other Personal Property	Total Real and Personal Property	Railroad Valuation	Total Value of County	
Beaverhead	627,309	\$ 4.03	\$ 2,530,227	\$ 645,724	\$ 1,628,553	\$ 4,379,944	\$ 1,205,742	\$ 10,390,190	\$ 2,002,635	\$ 12,392,825
Big Horn	504,391	4.53	2,286,976	187,665	446,722	2,777,312	550,514	6,249,189	1,568,526	7,817,715
Blaine	880,800	4.27	3,768,090	489,591	743,001	2,461,332	1,432,782	8,894,870	1,199,137	10,094,007
Broadwater	415,826	3.39	1,408,428	309,105	563,562	965,054	670,591	3,916,740	1,306,222	5,222,962
Carbon	432,728	7.40	3,202,635	472,880	1,865,964	1,574,041	1,489,449	8,604,969	1,517,411	10,122,380
Carter	472,651	3.63	1,714,661	182,285	159,881	1,746,560	296,603	4,099,990	1,517,411	5,617,401
Cascade	1,369,836	5.25	7,190,345	2,864,357	18,212,681	2,961,740	7,270,776	38,499,899	3,675,066	42,174,965
Chouteau	1,850,725	4.26	7,893,332	1,196,032	1,127,103	2,585,224	2,417,556	15,219,247	2,100,519	17,319,766
Custer	1,890,701	3.34	6,307,442	1,465,287	5,791,175	4,240,720	1,969,599	18,774,223	1,930,389	20,704,612
Dawson	2,931,287	3.37	9,872,262	614,119	1,546,941	3,427,061	1,701,322	17,161,705	1,308,607	18,470,312
Deer Lodge	154,984	4.33	670,520	4,025,047	3,904,688	228,815	2,835,670	11,664,740	1,203,104	12,867,844
Fallon	823,750	4.74	3,900,875	256,795	539,700	925,230	603,140	6,225,740	791,836	7,017,576
Fergus	2,477,530	4.80	11,889,425	1,343,435	4,850,216	4,071,775	3,072,224	25,237,075	3,253,323	28,480,398
Flathead	980,016	5.98	5,860,805	753,360	2,771,450	1,002,165	2,580,015	12,967,795	2,631,008	15,598,803
Gallatin	946,666	7.71	7,294,155	1,067,030	4,500,130	1,567,630	2,589,480	17,018,425	2,880,778	19,899,203
Granite	270,642	3.89	1,053,409	187,509	658,240	706,015	887,038	3,492,211	1,470,820	4,963,031
Hill	1,660,932	4.54	7,535,156	686,877	2,119,832	1,890,546	2,530,619	14,763,030	2,356,500	17,119,530
Jefferson	316,653	3.96	1,252,538	312,968	1,091,557	741,863	590,914	4,019,840	2,846,679	6,866,519
Lewis and Clark	735,925	3.29	2,495,145	904,360	11,868,460	1,868,095	6,071,525	23,207,685	2,121,898	25,329,583
Lincoln	241,673	3.14	757,670	98,000	2,331,150	139,355	954,290	4,280,465	2,684,475	6,964,940
Madison	657,466	4.19	2,756,977	843,600	1,170,281	2,760,855	1,120,351	8,652,064	914,521	9,566,585
Meagher	789,004	3.94	3,105,865	231,295	589,099	2,005,037	599,165	6,530,461	1,079,924	7,610,385
Mineral	60,952	3.25	198,215	36,040	908,302	52,570	374,495	1,569,622	2,992,161	4,561,783
Missoula	279,821	8.61	2,409,405	808,540	9,963,081	721,470	2,980,400	16,882,596	3,634,780	20,517,376
Musselshell	1,478,461	4.57	6,750,738	520,495	2,715,416	1,301,414	1,443,638	12,731,701	2,390,855	15,122,556

THIRD BIENNIAL REPORT

145

Park	790,284	4.35	3,435,395	807,315	2,891,445	1,655,555	1,863,685	10,653,395	1,651,854	12,305,249
Phillips	617,301	3.60	2,222,952	343,503	739,835	1,807,249	837,655	5,951,194	1,167,008	7,118,202
Powell	582,231	4.47	2,556,734	284,060	1,643,564	1,192,271	715,287	6,391,916	2,218,475	8,610,391
Pratt	843,063	3.53	2,976,598	226,085	534,506	1,111,282	533,518	5,381,989	1,569,431	6,951,420
Ravalli	287,928	7.73	2,225,743	570,946	2,671,022	951,384	903,701	7,329,796	659,740	7,982,536
Richland	1,254,670	4.27	5,359,863	400,440	1,567,623	1,511,591	1,152,004	9,991,521	594,170	10,585,691
Rosebud	2,126,262	3.56	7,578,656	546,395	977,225	2,763,015	1,317,033	13,182,324	3,380,165	16,562,489
Sanders	299,824	2.89	867,157	158,810	1,663,824	432,586	1,632,610	4,754,987	2,874,663	7,629,650
Sheridan	1,348,750	3.98	5,362,814	830,683	2,297,853	2,406,882	3,450,895	14,349,127	3,108,263	17,457,390
Silver Bow	77,448	4.13	319,685	109,200	22,290,595	3,399,945	27,235,375	50,354,800	3,080,206	53,435,006
Stillwater	705,764	5.35	3,777,394	399,901	588,555	1,066,886	714,580	6,747,316	842,244	7,589,560
Sweet Grass	732,030	4.37	3,200,763	289,525	585,858	1,580,712	936,348	6,593,201	814,937	7,408,138
Teton	1,149,532	5.93	6,814,645	1,162,664	2,244,286	3,425,833	3,281,246	16,928,674	3,257,161	20,185,835
Toole	691,324	5.50	3,803,512	362,810	2,300,843	1,015,220	772,770	6,345,155	1,529,793	7,874,948
Valley	763,557	3.93	3,004,452	316,728	1,402,817	2,503,203	1,818,785	9,045,985	1,674,181	10,720,166
Wheatland	696,626	7.02	4,889,587	283,310	897,783	1,246,689	1,052,599	8,469,968	1,724,543	10,194,511
Wibaux	350,695	5.53	1,938,468	150,090	239,478	687,610	404,484	3,420,130	377,400	3,797,530
Yellowstone	1,647,497	4.12	6,782,813	952,880	7,875,365	2,040,720	4,628,956	22,280,734	3,098,288	25,379,022
Same property in 1917	38,215,587		\$171,221,927	\$ 27,727,741	\$133,569,671	\$75,000,516	\$101,689,229	\$509,209,084	\$83,483,696	\$592,692,780
	35,936,646		166,427,710	33,626,296	112,711,770	65,685,652	121,089,115	499,540,543	82,745,986	582,286,529

Sheridan	1	404	1,227	1	496	1,491	394	1	1,194	1	490	1,329.50				
Silver Bow	1	127	1,396	4	195	1,655	125	3	1,420	1	131	370.00				
Stillwater	7	482	1,560	7	383	1,284	13	2	1,290	1	390	937.00				
Sweet Grass	2	515	1,932	1	498	1,509	4	3	1,719	3	564	1,473.50				
Teton	2	1,480	4,485	9	1,597	4,932	7	5	6,183	3	1,122	3,223.50				
Toole	2	937	4,741	2	1,495	1,233	2,015	3	2,085	3	557	1,601.00				
Valley	44	3,858	12,501	14	2,385	7,416	8	18	7,485	3	1,441	3,835.50				
Wheatland		44	132	1	423	1,272	452		1,401	5	314	831.50				
Wibaux		664	2,172	3	463	1,488	400		1,287	17	516	1,574.00				
Yellowstone	10	10														
Total	891	606,816	51,114,141	702	383,215	61	\$108,629	323	496,36,798	39	\$117,117	235	311	28,186	71	\$81,263.50

Note: A number of claims from Flathead county were disallowed in 1914.

LABOR AND INDUSTRY

TABLE NO. 27—PENITENTIARY STATISTICS. STATEMENT SHOWING BY COUNTIES THE OFFENSES FOR WHICH PRISONERS WERE COMMITTED TO THE MONTANA STATE PRISON FOR THE YEAR 1916.

Offense	Beaverhead	Blaine	Broadwater	Carbon	Carter	Cascade	Chouteau	Custer	Dawson	Deer Lodge	Fallon	Fergus	Flathead	Gallatin	Granite	Hill	Jefferson	Lewis & Clark	Lincoln	Madison	Meagher	Missoula	Musselshell	Park	Phillips	Powell	Ravalli	Rosebud	Sanders	Sheridan	Silver Bow	Sweet Grass	Teton	Toole	Valley	Yellowstone	Total		
Arson	4			1		1	1	1	1	2	1	3		1	1			1			1	2	2	3					1		2		1			3	33		
Assault																						1															2	2	
Attempted Murder																																							
Bigamy																																							
Burglary	7			1		7	3	4	3	7		1										4	1	6	3				1	5	2	16	3		3	7	115		
Carrying Concealed Weapons	1					2							2									1															1	10	
Crime Against Nature																						1																	
Felony				1																																			
Fictitious Checks																																							
Forgery	1					2	1	4	1	1	1	5	2								3	1	2															56	
Grand Larceny	4		2	1	1	18	2	5	4	2	3	8	1	7						1	5	2	2	3				5	1	1	2		1	1	6	99			
Incest																																							
Injuring Public Jail																																							
Living with Prostitutes																																							
Manslaughter	2	1			1																																		
Mayhem																																							
Murder																																							
Obtaining Money False Pretenses																																							
Perjury						2		1	1	1	2	1	1	1																									
Rape						2																																	
Receiving Stolen Goods																																							
Robbery																																							
Total	20	1	3	3	2	39	6	15	21	13	8	35	11	33	2	11	3	11	7	4	11	14	7	14	6	1	2	13	5	13	48	1	11	1	7	36	438		

TABLE NO. 28—PENITENTIARY STATISTICS. STATEMENT SHOWING BY COUNTIES THE OFFENSES FOR WHICH PRISONERS WERE COMMITTED TO THE MONTANA STATE PRISON FOR THE YEAR 1917.

Offense	Beaverhead	Big Horn	Blaine	Broadwater	Carbon	Cascade	Chouteau	Custer	Dawson	Deer Lodge	Fallon	Fergus	Flathead	Gallatin	Granite	Hill	Jefferson	Lewis & Clark	Lincoln	Madison	Meagher	Mineral	Missoula	Musselshell	Park	Phillips	Powell	Ravalli	Richland	Rosebud	Sanders	Sheridan	Silver Bow	Sweet Grass	Teton	Toole	Valley	Wheatland	Wibaux	Yellowstone	Total
Assault	2				1	4	1	1	2					1				1		1	4		1				1			1				5							36
Bigamy																																									4
Burglary	1	1			8		2	2						4		5	2	3	2	1			5	2	3	1	1	1	1	1		1	10								6
Carrying Concealed Weapons							1							1		1																									8
Crime Against Nature					1	1	1																										1								2
Escaped from Prison																																									1
Felony	3																			1			2		2																6
Fictitious Checks	4																																								8
Forgery					1	1	2	1			2		3	4	1							1	2	2	3	2	2	1	1	1	5	1	7	9	3	1					47
Grand Larceny	10	1	1	1	3	24	1	5	4	1			6			3	1	2	2	1	2	1	1	1	3	4	2	1	1	1	1	1	7	9	3	1					131
Incest																																									1
Living with Prostitutes																																									7
Manslaughter					1	1	2	2						1	1		1	1																						112	
Murder					2	2	1	1			1										4																				1
Obtain. Money False Pre.																																									2
Perjury					1	1	6	2						1	1										1																9
Rape																																									1
Robbery	4				2	5	1	2	4													1	6	1																	18
Total	24	1	2	1	8	46	6	22	10	9	2	7	11	19	2	10	4	9	5	4	10	2	22	6	11	8	10	7	1	6	2	14	62	3	5	1	11	7	2	41	433

TABLE NO. 29—BANKING STATISTICS. AGGREGATE RESOURCES AND LIABILITIES OF THE STATE, PRIVATE AND NATIONAL BANKS OF MONTANA, JUNE 20, 1917.

(Compiled from figures furnished by the State Examiner)

RESOURCES

	State	Private	National	Total
Loans and Discounts.....	\$64,814,043.35	\$ 2,856,041.81	\$51,736,000.00	\$119,406,085.16
Overdrafts	431,449.34	27,145.30	220,000.00	678,594.64
Bonds, Warrants, etc.....	5,030,866.98	3,945,747.07	10,946,000.00	19,922,614.05
Banking House, Fur. & Fix.....	2,728,533.37	279,291.30	1,779,000.00	4,786,824.67
Other Real Estate.....	738,882.69	478,260.59	505,000.00	1,722,143.28
Gold	1,618,412.85	144,446.14	693,000.00	2,455,858.99
Silver and Minor Coin.....	388,712.49	41,789.53	.....	430,502.02
Currency	3,307,447.75	606,614.00	266,000.00	4,180,061.75
Due from Apprd Reserve Agts.	16,584,602.63	3,822,762.90	15,067,000.00	35,474,365.53
Due from Other Banks.....	1,608,585.88	110,524.71	7,799,000.00	9,518,110.59
Checks and Cash Items.....	520,777.76	43,408.38	394,000.00	958,186.14
Other Resources	221,222.60	1,025.57	586,000.00	808,248.17
Expense Over Earnings.....	60,035.96	2,648.61	.....	62,684.57
Total Resources	\$98,053,573.65	\$12,359,705.91	\$89,991,000.00	\$200,404,279.56

LIABILITIES

Capital Stock	\$10,288,900.00	\$ 702,000.00	\$ 6,583,000.00	\$ 17,573,900.00
Surplus	2,749,879.82	60,220.25	3,056,000.00	5,866,100.07
Undivided Profits	1,523,130.53	132,963.30	1,908,000.00	3,564,093.83
Due to Banks.....	4,657,096.42	413,366.37	6,368,000.00	11,438,462.79
Demand Deposits	50,203,858.77	7,464,887.34	45,084,000.00	102,752,746.11
Time Deposits	27,090,501.55	3,531,188.79	23,168,000.00	53,789,690.34
Bills Payable	1,520,299.49	29,015.00	3,735,000.00	5,284,314.49
Other Liabilities	19,907.07	26,064.86	89,000.00	134,971.93
Total Liabilities	\$98,053,573.65	\$12,359,705.91	\$89,991,000.00	\$200,404,279.56

TABLE NO. 30 —BANKING STATISTICS. AGGREGATE RESOURCES AND LIABILITIES OF THE STATE, PRIVATE AND NATIONAL BANKS OF MONTANA, MAY 10, 1918.

(Compiled from figures furnished by the State Examiner)

RESOURCES

	State	Private	National	Total
Loans and Discounts.....	\$68,500,748.83	\$ 2,769,019.53	\$54,864,000.00	\$126,133,768.36
Overdrafts	291,401.04	27,607.45	177,000.00	496,008.49
Bonds, Warrants, etc.....	6,741,875.71	3,585,669.96	13,984,000.00	24,311,545.67
Banking House, Fur. & Fix.....	2,939,981.81	261,419.01	2,092,000.00	5,293,400.82
Other Real Estate.....	796,394.62	482,264.71	524,000.00	1,802,659.33
Gold	870,781.50	175,785.00	10,561,000.00	11,607,566.50
Silver and Minor Coin.....	483,257.64	48,012.95	690,000.00	1,221,270.59
Currency	3,006,548.75	455,228.25	1,797,000.00	5,258,777.00
Due from Appr'd Reserve Agts.	11,116,477.79	2,027,091.25	4,659,000.00	17,802,569.04
Due from Other Banks.....	1,234,855.63	138,668.62	2,140,000.00	3,513,524.25
Checks and Cash Items.....	447,926.11	111,410.64	534,000.00	1,093,336.75
Other Resources	446,526.78	613.11	45,000.00	492,139.89
Total Resources	\$96,876,776.21	\$10,082,790.48	\$92,067,000.00	\$199,026,566.69

LIABILITIES

Capital Stock	\$10,665,000.00	\$ 645,000.00	\$ 7,660,000.00	\$ 18,970,000.00
Surplus	3,082,282.32	43,000.00	3,407,000.00	6,532,282.32
Undivided Profits	1,471,887.31	110,103.75	1,811,000.00	3,392,991.06
Due to Banks.....	3,277,625.94	80,086.32	7,901,000.00	11,258,712.26
Demand Deposits	46,858,125.38	5,612,021.69	43,897,000.00	96,367,147.07
Time Deposits	27,032,692.67	3,576,903.94	25,911,000.00	56,520,596.61
Bills Payable	4,397,784.09	13,000.00	1,261,000.00	5,671,784.09
Other Liabilities	91,378.50	2,674.78	219,000.00	313,053.28
Total Liabilities	\$96,876,776.21	\$10,082,790.48	\$92,067,000.00	\$199,026,566.69

TABLE NO. 31—JAIL INCARCERATIONS IN THE COUNTY JAILS DURING 1916, AS REPORTED BY SHERIFFS.

County	White		Colored		Indians and Half Breeds		Chinese and Japanese	Total confined during year	Total No. of days all were confined	Average No. of days each was confined	Misdemeanors	Held for Felonies	Witnesses	Insane held temporarily	Each county's percentage of state's total
	Males	Females	Males	Females	Total	Males	Females								
Beaverhead	336	8	344	6	2	8	3	6	4,770	13.	328	22	1	10	2.59
Big Horn	31		31				4	3	1,542	37.	31	4		1	.25
Blaine	34	4	38				6	5	1,767	38.	40	2	1	3	.33
Broadwater	40	1	41	1	1	1	2	3	1,363	8.	35	9			.31
Carbon	65		65						1,580	24.	52	10	1	2	.46
Cascade	82	48	130	43	14	57	31	33	18,000	18.	605	311	46	38	7.43
*Chouteau	254	1	255	2		4	2	2	3,496	13.50	223	25	2	3	1.84
Custer	85	2	87	4					2,934	13.50	47	44	2		.66
Dawson	87	3	90	6	2	8		2	3,140	.36	32	44			.62
Deer Lodge	562	4	566	6					11,480	20.	420	110	32	12	4.23
*Fallon	35		35						1,176	33.60	16	17			.24
Fergus	215	18	233	32	10	42	6	4	8,129	29.	131	123	9	22	2.05
Flathead	122	7	129	2			2	1	3,991	29.	77	37		20	1.02
Gallatin	263	18	281	6	4	10		2	2,887	9.	180	95	7	11	2.11
*Granite	37		37						1,308	35.33	28	7			.31
Hill	119	3	122	4			2		2,635	20.50	57	57	3	11	.92
Jefferson	32		32						9,326	19.20	401	10	8	58	3.43
*Lewis and Clark	459	27	486	12	12	4	4	5	1,032	19.	22	25			.38
Lincoln	54		54						5,793	75.	36	40	1	2	.08
*Madison	11		11					1	870	10.	67	5	2	57	.2
Meagher	65	1	66	11	1	12			9,884	4.43	1,560	430	23	13	6.52
Mineral	84	1	85	2			14	2	2,084	35.	48	7	4	21	16.05
Missoula	2,217	47	2,264						2,773	9.75	257	17	7	6	2.06
Musselshell	53	2	55	4				5	2,214	20.	75	31		10	.79
Park	264	7	271	6	5	11	3	1	3,293	5.	631	13		5	4.70
*Phillips	104	4	108	6	2	8		1	160	9.	12	2	1	2	.14
*Powell	645		645						509	12.12	26	9	4	30	.30
*Prairie	17		17						1,978	38.	39	10	4	3	.37
Ravalli	40	2	42						1,479	24.50	15	41		4	.33
*Richland	52		52						1,561	25.	35	11	12	15	.45
Rosebud	56	2	58	1			2	1	3,181	27.	69	37		11	.84
*Sanders	55	5	60				1	63	44,933	9.	4,670	200	36	84	35.92
Sheridan	108	2	110	115	24	139	24	11	15,33	15.33	53			1	.38
Silver Bow	4,696	120	4,816					1	367	9.16	33	5		2	.28
Stillwater	52		52						1,853	15.	91	23		3	.34
Sweet Grass	40		40						1,594	11.	59	2			.38
*Teton	107		107	2			8	1	3,059	14.50	163	23	15	8	1.80
*Toole	54		54						763	58.66	19	3			9.00
Valley	199		199				9	1	13,012	34.	212	73	22	90	3.38
Wahkiakum	12		12												
Yellowstone	358	21	379	8	1	9	2	11	81,939		10,911	1,945	438	496	100.00
Total	12,902	359	13,261	273	65	338	132	10	471,738		10,911	1,945	438	496	100.00

*Includes city prisoners confined in county jail.

TABLE NO. 32—JAIL INCARCERATIONS IN THE COUNTY JAILS DURING 1917, AS REPORTED BY SHERIFFS

County	White			Colored			Indians and Half Breeds			Total Confined During Year	Total No. of Days All Were Confined	Average No. of Days Each Was Confined	Misdemeanors	Felonies	Witnesses	Insane Held Temporarily	Each County's Percentage of State's Total			
	Males		Total	Females		Total	Males		Total									Females		Total
	Males	Females		Males	Females		Males	Females										Males	Females	
Beaverhead	354	14	368	3	2	5	1	1	2	4	378	7,336	19.50	332	29	2	15	2.70		
Big Horn	57	1	58	2	1	2	11	1	12		72	1,736	24.4	64	4	4		.52		
Blaine	62	1	63								64	1,692	26.75	57	3		4	.46		
Broadwater																				
Carbon	68		68	1		1					69	2,172	31.57	44	18	3	4	.49		
Carter											7	81	11.57	3	2			.05		
Cascade	905	53	958	49	6	55	24	4	28		1,041	28,631	27.50	485	437	60	59	7.45		
*Chouteau	262	2	264	4		4	6		6		274	1,386	5.	242	21	1	10	1.96		
Custer	104	5	109	16	2	18				8	135	4,180	31.	75	51			.97		
Dawson	130		130								130	3,173	24.50	90	27	5	8	.93		
Deer Lodge	422	3	425	8	4	12					487	9,743	20.	381	62	25	29	3.35		
Fallon	29		29								29	597	20.	20	6			.23		
Fergus	289	22	311	8	2	10	5	2	7		328	6,560	20.	200	93		35	2.35		
Flathead	169	7	176	12	1	13					189	4,518	24.	109	57	1	22	1.35		
Gallatin	308	8	316	7	2	9	1		1		326	5,216	16.	250	66	3	7	2.37		
*Granite	388	4	392							1	393	2,944	7.50	369	15	2	7	2.81		
Hill	140	7	147	10		10	5	4	5	4	166	3,320	20.	93	65	8	8	1.16		
*Jefferson	26	1	27								27	250	9.25	11	10	1	5	.22		
Lewis and Clark	650	37	687	10	2	12	15		15	1	715	14,116	20.	648	21	9	37	5.13		
Lincoln	99		99	1		1					100	1,733	17.33	56	32		12	.71		
*Madison	18		18	1		1					19	334	17.33	7	7	1	4	.16		
Meagher	38		38								38	1,188	36.	36	1	1		.28		
*Mineral	147	3	150				2		2		152	2,368	15.	135	8		11	1.09		
Missoula	1,307	74	1,381	5		5	45	9	54	3	1,443	13,566	9.	1,376	27	20	20	10.32		
Musselshell	1,119	5	1,24								124	3,365	3.	87	26	5	6	.91		
Park	465	6	471	1		1				4	476	5,106	10.75	486	27	8	5	3.34		
*Phillips	72	2	74				8		8		82	1,706	20.75	51	28		3	.58		
*Powell	476	4	480	12	2	14				3	497	4,822	9.75	478	14		5	3.43		
Prairie	42		42								42	1,144	27.25	30	6			.30		
Ravalli	47	2	49							1	50	407	7.	39	5	1	1	.35		
*Richland	66	5	71				3		3		71	1,751	24.66	39	18	2	12	.50		
Rosebud	121		121							1	124	1,572	12.50	88	17	7	12	.91		
*Sanders	93	1	94				4	1	5	1	100	1,925	19.25	89	4	1	6	.71		
Sheridan	110	6	116				17		17		133	3,292	24.	81	45			.96		
*Silver Bow	4,367	150	4,516	75	15	90	40		40	13	4,660	41,940	9.33	4,265	225	50	120	33.40		
Stillwater	67		67								67	622	9.33	64	1	1	1	.54		
Sweet Grass	53	2	55								55	463	8.50	37	13	5		.37		
*Teton	60	1	61	1		1	2		2	2	64	2,000	31.	51	2		11	.53		
*Toole	116		116	1		1	2		2		119	865	7.33	108	7		4	.89		
**Valley	182	4	186	8	4	12	4		4	2	204	4,595	22.50	144	47		13	1.41		
Wheatland	58		58	2		2					60	600	10.	26	34			.44		
Wibaux	27	1	28								28	556	20.	22	3		3	.23		
Yellowstone	402	13	415	5	3	8	2	3	5	12	440	11,170	25.	208	86	45	88	3.14		
Total	12,971	444	13,415	242	46	288	197	20	217	57	13,977	203,641	14.42	11,035	1,606	246	589	100.00		

†Broadwater failed to make any report. *Includes city prisoners confined in county jail.

LABOR AND INDUSTRY

TABLE NO. 33—REVENUE FROM LICENSES FOR FISCAL YEAR ENDING DEC. 31, 1916, AS REPORTED BY COUNTY TREASURERS.

Counties	Billiard Tables	Bottling Works	Bowling Alleys	Breweries	Cigarette Selling	Intelligence Offices	Liquor Selling, Retail	Liquor Selling, Wholesale	Pawnbrokers and Peddlers	Power and Light Companies	Shows and Circuses	Shooting Galleries	Telephone and Telegraph	Theaters	Water Companies	Street Railways	All Others	Total
Beaverhead	\$ 202.50						\$ 14,190.00		62.50	\$ 50	\$ 2		\$ 100	\$ 37.50			\$ 50.00	14,724.50
Big Horn	210.00		\$ 20		110.00		1,760.00					15		18.00			50.00	2,150.00
Blaine	134.00		5		480.00		3,410.00				135						60.00	4,257.00
Broadwater	165.00		20	45	250.00		5,610.00					15					10.00	6,115.00
Carbon	7.50				220.00		18,645.00		12.50		75		100	50.00			5.00	19,115.00
Cascade	1,512.50	\$ 300	190	375	\$ 3,730.00		56,628.00		330.00	1,100	375	150	100	200.00			635.00	65,525.50
Chouteau	221.25						8,085.00										5.00	8,411.25
Custer	797.50	50	55		1,185.00		16,335.00	\$ 75	25.00	50	380	15	100	275.00			101.00	19,368.50
Dawson	161.25				440.00		6,336.00		93.75	765	5		100	50.00			82.50	18,373.15
Deer Lodge	271.86				295.00		16,864.04											5,172.10
Fallon	233.10		30		400.00		4,510.00		37.50	100	375	30	300	200.00				5,172.10
Fergus	1,140.00			180	1,520.00		23,706.00	625										28,163.50
Flathead	662.50		15	90	670.00		13,046.00				50		300	50.00	50			14,933.50
Gallatin	658.75	200	35	180	880.00	\$ 10	15,851.00	75		100			300				470.00	18,953.75
Granite	283.75				150.00		6,578.00						100					7,921.75
Hill	108.75	25			1,140.00		13,497.00		25.00	50	5	15	100	125.00			5.00	14,670.75
Jefferson	142.50						10,670.00		575.00	400	50		445	125.00			5.00	10,842.50
Lewis & Clark	491.25	170		100	1,880.00	120	17,270.00		12.50	150	50	15	100	24.00			80.60	21,826.25
Lincoln	300.00				370.00		7,282.00										250.00	8,384.10
Madison	60.00			60	290.00		9,295.00											8,818.75
Meagher	243.75				450.00		8,085.00											8,306.25
Mineral	191.25				70.00		7,755.00											8,109.20
Missoula	697.50	120	65		1,230.00	150	28,875.00		161.20	400	180	15	400	125.00	200		70.00	33,109.20
Mussashell	685.00	50			680.00		14,986.24	75	62.50	50	30	30	200	50.00	400		45.00	16,978.74
Park	382.50		20		340.00		17,300.00	450						50.00	200		16.02	16,022.50
Phillips	451.25						7,700.00							50.00	200		41.00	8,239.25
Powell	530.00			60	318.75		9,570.00	75		50	20		100	25.00			20.00	10,948.75
Prairie	142.50		15				2,750.00			50	5						20.00	2,932.50
Richland	585.00				870.00		4,015.00			50	30		100	75.00	100		95.00	5,920.00
Rosebud	153.75	30			250.00		6,171.00	150									590.75	6,782.25
Sanders	326.25				150.00		5,790.00											6,402.50
Sheridan	876.20		55		902.00		13,790.00	375	25.00	100	109				200		36.00	22,178.20
Silver Bow	1,421.25	360	60	660	3,040.00	220	148,500.00	225	1,565.00	600	750			500.00	500		245.00	158,846.25
Stillwater	168.25		10		360.00		4,890.00											3,207.25
Sweet Grass	74.00						2,224.00	75			21		200					4,575.00
Teton	578.00		10		690.00		15,638.00		12.50								100.00	16,976.00
Toole	213.75						6,435.00										35.00	6,696.25
Valley	260.00				550.00		8,184.00	75									15.00	9,299.00
Wibaux	52.50		20		90.00		4,290.00											4,477.50
Yellowstone	1,405.00	120	5	300	1,970.00	130	26,455.00	75	357.50	400	175	30	400	188.00			15.00	32,210.50
Total	\$17,454.66	\$1,395	\$660	\$2,190	\$25,970.75	\$ 630	\$615,675.28	\$2,350	\$3,382.45	\$4,465	\$3,172	\$ 420	\$3,845	\$2,079.50	\$2,000	\$ 950	\$ 2,656.10	\$89,275.74

Counties	Billiard Tables	Bottling Works	Bowling Alleys	Breweries	Cigarette Selling	Intelligence Offices	Liquor Selling, Retail	Liquor Selling, Wholesale	Pawnbrokers and Peddlers	Power and Light Companies	Shows and Circuses	Shooting Galleries	Telephone and Theaters	Water Companies	All Others	Total
Beaverhead	228.75			\$ 65	25.00		\$ 13,596.00		\$ 37.50	\$ 50.00	\$ 232.00		\$ 100		\$ 40.00	\$ 14,399.25
Big Horn	227.75				117.25		1,760.00									2,101.00
Blaine	196.50		\$ 5		257.50		3,410.00				5.00				490.00	4,335.00
Broadwater	196.00		40	90	187.50		4,840.00				17.00	\$ 15.00				5,385.50
Carbon	37.50				739.50		18,870.00		25.00		55.00	15.00	100			19,392.10
Cascade	37.50				739.50		18,870.00		25.00		55.00	15.00	100			19,392.10
Carters	1,867.50	\$ 300.00	175	825	2,680.00		54,868.00		1,020.00		250.00	105.00	500		200.00	63,075.50
Chouteau	22.50				25.00		54,900.00									1,037.50
Custer	403.75		10		450.00		8,195.00			50.00	20.00	15.00			5.00	9,133.75
Dawson	580.25	50.00	70		1,045.00	\$ 20.00	13,530.00	225	25.00		260.00	15.00			17.00	15,837.25
Deer Lodge	428.75		60		642.50		6,006.00		50.00	50.00	35.00	30.00			50.00	7,385.50
Fallon	916.00		5	130	390.00		29,866.00		50.00		150.00	105.00	400		40.00	32,900.00
Fergus	1,537.50		40		327.50		3,855.00		162.50	100.00	208.50	7.50	200		2.00	4,150.55
Flathead	637.50		15	180	2,401.25		22,958.00	425		200.00	72.50		100		75.00	27,444.00
Gallatin	273.77	40.00	75	90	665.00		15,499.00		18.75	200.00	40.00		100		12.50	17,444.00
Granite	328.75		30	80	447.50		7,870.00		12.50	50.00	30.00		100		10.00	8,967.52
Hill	165.00	50.00	10	120	1,825.00		13,662.00				25.00					15,847.00
Jefferson	378.75			400	275.00		9,955.00		382.50	200.00	310.00		48		250.00	10,821.25
Lewis & Clark	588.75	140.00			1,460.00	120.00	33,143.00			200.00	20.00		100		64.50	37,142.25
Lincoln	303.75				380.00		7,238.00			200.00	48.00				160.00	8,308.25
Madison	86.25			60	565.00		9,625.00			30.00						10,544.25
Meagher	510.00	202.50					6,380.00									7,192.50
Mineral	213.75				125.00		8,690.00								60.00	9,088.75
Missoula	791.25	170.00	55		975.00	140.00	25,800.00	1,320	37.50		175.00		400		65.00	30,153.75
Musselshell	658.75	50.00	35		655.00		13,563.50		37.50		15.00				13.41	15,141.75
Park	555.00		50		487.50		13,090.00	375	25.00	100.00	285.00	15.00	200		90.00	15,332.50
Phillips	550.00				500.00		6,875.00				20.00				246.00	7,521.00
Powell	303.75			60	381.25		9,240.00	75			55.00		100			10,191.00
Prairie	153.75		20		245.00		3,245.00				10.00				5.00	3,508.75
Ravalli	480.00				175.00		3,520.00		12.50	100.00	25.00	30.00			95.00	4,157.50
Richland	257.50		15		435.00		5,808.00				48.00					6,352.50
Rosebud	434.50				450.00		19,580.00				45.00		100		100.00	20,175.50
Sanders	266.25				262.50		5,940.00			50.00	20.00					6,337.25
Sheridan	978.05		75		1,348.75		19,580.00	225			44.00				404.00	22,654.50
Silver Bow	1,640.25	300.00	15	660	2,330.00	258.75	17,642.00	225	1,082.50	600.00	165.00		500		1,108.00	15,706.50
Stillwater	198.75				330.00		1,815.00				42.00					2,385.75
Sweet Grass	74.40				175.00		3,432.00	75			35.00		100			3,876.40
Teton	1,293.75		15		1,090.16		13,742.66		12.50		40.00				20.00	16,209.07
Toole	283.75				343.75		6,610.00				20.00				55.00	7,292.50
Valley	495.00				465.00		8,547.00	75			40.00				9.22	9,222.00
Wheatland	247.50				62.50		2,475.00				20.00					2,805.00
Wibaux	75.00		15		185.00		3,410.00								5.00	3,690.00
Yellowstone	1,492.50	120.00	20	375	1,367.50	180.00	26,363.40		220.00		395.00	30.00	400		437.50	31,600.90
Total	\$21,717.27	\$1,422.50	\$850	\$3,255	\$27,930.51	\$718.75	\$619,143.56	\$3,020	\$3,142.50	\$1,798.75	\$3,265.00	\$397.50	\$3,448	\$2,339.25	\$50	\$696,617.59

COUNTIES	Divorces Granted Upon Complaint of															
	Marriage Licenses Issued										Total Divorces Granted		Percentage of Divorces Granted in Each County		Percentage of Divorces Granted in Marriage Licenses Issued	
			Wife		Husband											
	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917	1916	1917		
Beaverhead	128	142	17	18	7	7	24	25	1.59	1.46	18.74	17.60				
Big Horn	62	71	9	16	4	8	13	24	.88	1.40	21.61	34.00				
Blaine	105	108	6	5	4	3	10	8	.66	.47	9.52	7.40				
Broadwater	16	41	8	7	3	6	11	13	.73	.75	7.00	31.70				
Carbon	113	127	23	17	16	9	39	26	2.60	1.54	34.51	20.48				
Carter		27														
Cascade	729	909	97	100	39	48	136	148	9.06	8.75	17.28	16.27				
Chouteau	96	108	8	8	2	5	10	13	.66	.75	10.41	12.04				
Custer	317	388	54	47	23	22	77	69	5.33	4.05	24.30	17.83				
Dawson	236	228	19	16	8	4	27	20	1.80	1.17	11.44	8.77				
Deer Lodge	227	260	10	15	5	5	15	20	1.00	1.17	6.60	7.70				
Fallon	101	98	10	9	4	4	14	13	.96	.75	13.87	13.26				
Fergus	404	405	56	69	23	40	79	109	5.26	6.39	19.55	27.13				
Flathead	271	264	34	57	19	26	53	83	3.53	4.86	19.55	31.43				
Gallatin	168	222	38	26	12	6	50	32	3.33	1.89	30.00	14.44				
Granite	25	26		2				2		.11		42.30				
Hill	298	369	48	43	21	23	69	66	4.60	3.84	23.15	18.00				
Jefferson	42	51	4	3	1	1	5	4	.33	.23	11.90	7.84				
Lewis and Clark	383	481	64	66	34	27	98	93	6.53	5.46	25.58	19.31				
Lincoln	64	58	6	8	3	2	9	10	.60	.58	14.06	17.07				
Madison	20	29	10	4			10	8	.66	.47	50.00	27.58				
Meagher	58	33	9	10	3	2	12	12	.80	.69	20.70	36.36				
Mineral	16	19		2	1	2	1	4	.06	.23	6.66	21.05				
Missoula	381	376	52	62	18	20	70	82	4.66	4.79	18.39	21.80				
Musselshell	202	145	27	19	11	11	38	30	2.53	1.74	18.80	20.69				
Nank	177	180	38	31	5	11	43	42	2.85	2.48	24.23	23.33				
Phillips	97	135	16	16	10	5	26	21	1.73	1.21	26.91	15.55				
Powell	69	63	6	12	5	4	11	16	.73	.93	15.94	25.40				
Prairie	42	47	6	7	4	1	10	8	.66	.47	23.80	17.02				
Ravalli	56	76	11	18	3	5	14	23	.93	1.33	25.00	30.26				
Richland	203	133	5	12	8	4	13	16	.86	.92	6.41	12.03				
Rosebud	101	139	15	26	7	9	22	35	1.46	2.03	21.78	25.18				
Sanders	52	68	10	4	4	5	14	9	.93	1.52	27.00	13.24				
Sheridan	272	309	22	25	9	16	31	41	2.06	2.37	11.40	13.27				
Silver Bow	1,392	1,344	237	276	77	78	314	354	20.83	20.77	22.57	26.34				
Stillwater	84	68	3	4			3	7	.19	.41	3.57	10.30				
Sweet Grass	38	4	4	3	2	1	6	4	.38	.23	16.00	100.00				
Teton	133	120	4	4	1	2	5	6	.33	.34	3.76	5.00				
Toole	69	104	8	3			3	6	.53	.34	11.60	5.77				
Valley	233	283	20	35	12	17	32	52	2.13	3.02	13.73	18.37				
Wheatland		30		4		2		6		.34		20.00				
Wibaux	47	71	1	3	1	1	2	4	.13	.23	4.27	5.63				
Yellowstone	581	698	56	121	21	26	77	147	5.13	8.52	13.25	21.06				
Total	8,108	8,857	1,071	1,233	430	478	1,501	1,711	100.00	100.00	18.51	19.32				

LABOR AND INDUSTRY

TABLE NO. 37-1917 STATEMENT OF FIRES BY COUNTIES, WITH SOUND VALUATION OF BUILDINGS AND CONTENTS, WITH DAMAGE AND INSURANCE INVOLVED FOR THE YEAR 1917.

(Compiled by the State Fire Marshal)

Name of County	Value of Buildings	Damage to Building	Insurance on Building	Value of Contents	Damage to Contents	Insurance on Contents	Number of Fires
Beaverhead	\$ 6,000.00	\$ 2,287.00	\$ 3,600.00	\$ 41,500.00	\$ 4,300.00	.....	3
Big Horn	20,100.00	20,100.00	.....	5,075.00	5,075.00	.....	3
Blaine	2,200.00	35.00	2,000.00	5,700.00	1,675.00	.....	2
Carbon	8,000.00	1,500.00	5,500.00	5,000.00	1,700.00	.....	2
Cascade	176,000.00	2,100.00	127,600.00	90,175.00	4,265.00	.....	1
Chouteau	6,550.00	6,550.00	1,800.00	2,200.00	2,140.00	.....	20
Custer	38,300.00	1,564.00	23,900.00	33,600.00	1,331.00	.....	15
Dawson	126,900.00	1,150.00	1,000.00	2,200.00	1,775.00	.....	15
Deer Lodge	54,600.00	2,550.00	3,100.00	11,950.00	950.00	.....	14
Fergus	116,767.00	28,966.00	83,750.00	62,328.00	37,813.00	.....	14
Flathead	14,100.00	9,475.00	4,150.00	11,125.00	4,940.44	.....	26
Gallatin	70,200.00	22,184.00	29,850.00	82,700.00	9,766.00	.....	8
Granite	25,000.00	22,500.00	13,700.00	32,200.00	9,500.00	.....	21
Hill	87,200.00	22,700.00	51,800.00	12,500.00	4,000.00	.....	8
Jefferson	33,500.00	14,200.00	20,500.00	16,535.00	10,875.00	.....	3
Lewis and Clark	66,325.00	19,211.00	20,200.00	30,750.00	21,825.00	.....	4
Lincoln	2,350.00	2,850.00	20,700.00	3,750.00	2,100.00	.....	11
Madison	1,375.00	875.00	750.00	1,400.00	1,300.00	.....	4
Missoula	24,350.00	6,117.00	23,800.00	42,200.00	22,380.00	.....	9
Moagher	675.00	70.00	21,200.00	23,315.00	1,635.00	.....	1
Musselshell	44,415.00	3,506.00	29,650.00	51,620.00	6,462.00	.....	12
Park	56,160.00	4,508.00	1,800.00	5,500.00	500.00	.....	35
Powell	8,250.00	1,410.00	1,800.00	45,983.00	35,662.00	.....	5
Ravalli	28,700.00	15,910.00	18,100.00	27,900.00	19,700.00	.....	9
Rosebud	25,050.00	14,225.00	16,300.00	27,050.00	1,500.00	.....	8
Sanders	3,650.00	3,650.00	2,000.00	2,128,950.00	550.00	.....	2
Silver Bow	3,066,050.00	12,696.00	1,656,325.00	17,037.00	15,090.00	.....	131
Sheridan	44,632.00	18,109.00	20,500.00	37,054.00	17,307.00	.....	24
Sweet Grass	2,850.00	2,850.00	2,000.00	3,650.00	1,600.00	.....	1
Teton	3,000.00	1,750.00	1,200.00	19,460.00	13,895.00	.....	3
Valley	21,905.00	5,700.00	7,400.00	47,500.00	5,600.00	.....	8
Richland	9,550.00	1,555.00	8,000.00	208,400.00	27,364.00	.....	5
Yellowstone	137,400.00	15,515.00	86,250.00	7,500.00	7,500.00	.....	22
Phillips	49,600.00	49,600.00	31,000.00	.....	.....	.....	5
Wibaux	500.00	500.00	250.00	.....	.....	.....	1
Wheatland	6,900.00	1,080.00	3,000.00	14,040.00	1,775.00	.....	4
Wheatland	4,000.00	75.00	2,000.00	1,500.00	.....	.....	1
Total	\$4,394,104.00	\$350,522.00	\$2,324,675.00	\$3,114,741.00	\$299,271.00	\$1,868,855.00	436

THIRD BIENNIAL REPORT

159

TABLE NO. 38—INSURANCE. SUMMARY OF INSURANCE FOR THE
STATE OF MONTANA FOR THE YEARS 1914, 1915, 1916 AND 1917.
(Compiled by the State Insurance Commissioner)

LIFE INSURANCE

	Insurance in Force	Premium Receipts	Losses Incurred	Losses Paid
1914	\$ 92,586,610.65	\$2,936,153.79	\$1,113,258.92	\$1,119,302.44
1915	101,694,433.37	3,228,211.35	909,961.44	881,214.95
1916	117,736,070.19	3,597,772.61	1,063,525.88	1,082,550.87
1917	136,869,922.98	4,138,957.06	1,066,221.34	1,017,113.58

ASSESSMENT LIFE INSURANCE

1914	\$ 2,294,000.00	\$ 33,610.33	\$ 8,000.00	\$ 8,000.00
1915	1,950,000.00	26,721.50	2,000.00	2,000.00
1916	2,562,000.00	36,463.06	4,000.00	2,000.00
1917	4,164,500.00	57,013.81	31,000.00	26,875.00

INDUSTRIAL BUSINESS

1914	\$ 2,690,558.00	\$ 87,919.92	\$ 15,780.26	\$ 15,260.14
1915	3,109,871.00	103,356.33	20,070.36	20,180.48
1916	3,491,647.00	114,750.82	30,223.10	29,261.10
1917	3,981,555.00	130,443.28	37,641.08	38,671.08

*Merchants Life Association changed to Legal Reserve Life.

FIRE INSURANCE

	Net Risk Written	Net Premium Receipts	Fire Losses Incurred	Fire Losses Paid
1914	\$107,697,848.51	\$2,375,593.42	\$ 957,209.99	\$ 949,393.42
1915	122,627,677.48	2,561,942.05	1,301,474.11	1,303,850.32
1916	153,774,263.99	3,414,296.27	1,773,732.28	1,728,202.28
1917	197,210,071.40	4,060,859.47	1,694,407.82	1,478,880.65

MISCELLANEOUS BUSINESS

	1914	1915	1916	1917
Accident	\$185,530.12	\$195,080.76	\$ 298,948.94	\$ 317,935.04
Health	42,999.03	40,803.46	62,714.56	39,025.91
Liability	169,622.34	113,839.97	73,739.01	107,037.65
Workmen's Compensation	5,048.50	145,549.86	285,019.55	305,656.47
Fidelity and Surety	130,155.16	172,561.67	213,350.44	265,276.85
Plate Glass	33,648.69	36,389.38	37,898.11	47,163.80
Steam Boiler	1,269.33	5,379.99	6,684.26	7,981.54
Burglary and Theft	8,039.42	10,108.49	10,361.39	13,179.37
Sprinkler	73.29	438.76	266.35	311.04
Auto & Teams Prop'ty Damage	7,099.05	9,904.58	14,585.35	33,767.38
Livestock	27,485.17	35,204.03	47,531.53	80,581.66
Hail and Tornado	72,414.85	115,481.65	357,821.01	415,256.98
Fly Wheel		218.00		55.99
Physicians' Defense	283.33	159.40	262.50	71.23
Industrial		246.13	3.00	
Totals	\$683,668.28	\$881,365.73	\$1,409,186.00	\$1,633,299.41

LABOR AND INDUSTRY

TABLE NO. 39—INSURANCE. BUSINESS DONE BY FRATERNAL SOCIETIES IN MONTANA FOR THE YEARS 1914, 1915, 1916 AND 1917.

(Compiled by the State Insurance Commissioner)

	Amount 1914	Amount 1915	Amount 1916	Amount 1917	Received From Montana Members, 1917	Death Claims Paid, 1917
American Yeomen, Brotherhood of.....	\$ 5,414,000.00	\$ 6,158,500.00	\$ 6,780,500.00	\$ 6,843,500.00	\$ 62,371.88	\$ 56,180.73
Ancient Order of Gleaners.....						
Ancient Order of United Workmen.....	565,500.00	715,000.00	838,000.00	1,240,500.00	24,126.58	7,500.00
Benefit Association of Railway Employees.....				55,000.00	24,793.25	7,400.00
Catholic Knights of America.....	78,750.00	77,000.00	75,500.00	76,750.00	1,913.43	6,000.00
Catholic Order of Foresters.....	634,500.00	618,500.00	612,500.00	609,000.00	11,440.39	9,000.00
Court of Honor.....	194,000.00	161,500.00	149,500.00	218,000.00	2,396.79	500.00
Degree of Honor.....	741,500.00	763,750.00	793,000.00	808,159.00	15,255.64	9,500.00
Equitable Fraternal Union.....	23,000.00	23,000.00	21,000.00			
Fraternal Aid Union.....	627,875.00	591,575.00	603,175.00	369,600.00	18.17	
Fraternal Brotherhood.....	1,616,200.00	1,398,425.00	1,525,845.00	968,575.00	26,712.68	39,200.00
Grand Carniolian Slovenian Catholic Union.....	399,000.00	403,750.00	400,500.00	330,000.00	6,886.39	3,250.00
Homesteaders, The.....	316,000.00	310,000.00	279,500.00	233,000.00	3,071.90	1,575.14
Independent Order of Foresters.....	284,925.00	270,625.00	262,125.00	219,625.00	4,843.84	7,000.00
Knights of Columbus.....	733,950.00	773,800.00	836,650.00	955,500.00	13,213.17	
Knights and Ladies of Security.....	2,354,000.00	2,572,500.00	2,815,000.00	3,448,500.00	35,645.81	45,682.20
Ladies' Catholic Benevolent Association.....	769,500.00	859,000.00	867,500.00	930,000.00	12,084.55	5,000.00
Ladies of the Maccabees.....	187,000.00	234,000.00	305,000.00	327,750.00	24,491.56	2,000.00
Maccabees, The.....	1,700,000.00	1,830,000.00	2,030,000.00	2,050,000.00	24,860.80	31,244.15
Modern Brotherhood of America.....	692,250.00	639,750.00	622,750.00	555,250.00	10,313.12	9,000.00
Modern Woodmen of America.....	9,812,000.00	10,105,500.00	11,065,500.00	11,650,500.00	108,220.68	87,000.00
Mystic Tilers.....	197,000.00	178,000.00	170,000.00	108,000.00	2,837.65	
National Croatian Society of U. S. A.....	902,000.00	816,000.00	944,000.00	1,007,800.00	20,150.25	12,400.00
National Slovak Society of U. S. A.....	171,200.00	179,200.00	181,700.00	179,200.00	3,123.90	2,500.00
National Union Assurance Society.....	243,000.00	245,000.00	230,000.00	213,000.00	7,432.58	7,000.00
Neighbors of Woodcraft.....	4,886,200.00	4,847,300.00	4,949,700.00	4,916,900.00	63,934.96	56,500.00
Railway Mail Association.....	356,000.00	332,000.00	328,000.00	332,000.00	895.50	
Royal Arcanum.....	172,500.00	198,000.00	166,500.00	129,511.00	4,368.72	2,000.00
Royal Highlanders.....	2,612,500.00	2,547,500.00	2,441,200.00	2,410,100.00	25,588.70	19,000.00
Royal Neighbors of America.....	2,305,250.00	2,530,750.00	2,901,250.00	2,961,500.00	23,663.03	17,500.00

Sons of Norway.....	33,000.00	35,400.00	49,900.00	56,300.00	1,485.42	.....
South Slavonic Catholic Union.....	224,000.00	204,500.00	209,500.00	206,000.00	5,483.67	3,700.00
Supreme Lodge Knights of Pythias.....	508,500.00	515,000.00	553,378.00	546,118.00	12,614.18	7,000.00
United Artisans	231,000.00	224,000.00	220,000.00	210,000.00	3,099.74	1,000.00
United Commercial Travelers of Am. Order of United Order of Foresters.....	1,820,000.00	1,925,000.00	2,250,000.00	2,555,000.00	5,658.00	.....
oWoman's Benefit Association of the Maccabees.....	2,076,639.29	2,222,572.62	2,380,823.65	2,492,673.65	38,601.98	4,093.75
Woodmen of the World.....	10,466,800.00	10,514,100.00	11,047,100.00	11,080,200.00	143,530.10	192,500.00
Total	\$54,355,539.29	\$56,169,897.62	\$59,926,596.65	\$61,443,512.65	755,735.61	\$ 665,980.63

†Society unable to furnish.

*Admitted 1917.

oName changed from Ladies of the Maccabees of the World.

‡Name changed from Brotherhood of All Railway Employees.

¶Name changed from The National Union.

§Name changed from Ladies of the Modern Maccabees.

LABOR AND INDUSTRY

TABLE NO. 40—STATEMENT OF THE BUSINESS TRANSACTED BY THE BUTTE FREE EMPLOYMENT OFFICE FOR THE YEAR 1916.

APPLICATIONS AND POSITIONS CLASSIFIED	YEAR 1916.												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Applications for Work—Male.....	450	384	396	320	280	240	223	220	300	324	280	265	3,682
Applications for Work—Female.....	250	242	263	218	230	275	260	280	260	282	240	220	3,051
Applications for Help—Male.....	137	108	93	102	120	100	160	210	104	118	136	100	1,488
Applications for Help—Female.....	270	233	320	362	346	350	200	300	270	250	265	273	3,495
Positions Filled—Male.....	130	108	93	98	110	90	140	184	93	103	120	90	1,359
Positions Filled—Female.....	220	230	264	273	290	252	222	256	193	200	211	183	2,804
NATURE OF POSITIONS FILLED—MALE													
Miners, Section Men and Laborers.....	122	26	83	88	98	70	63	120	23	63	82	70	765
Ranch Hands and Milkers.....	8	82	10	10	10	20	77	64	70	40	38	20	376
Miscellaneous.....													216
FEMALE													
Chambermaids and Domestic.....	150	130	190	180	180	110	102	86	86	98	90	100	1,502
Hotel and Restaurant Help.....	70	100	74	93	110	142	120	170	107	102	121	93	1,802
Miscellaneous.....													
Positions Filled in City—Male.....	122	90	83	88	98	70	63	64	78	73	32	72	933
Positions Filled in City—Female.....	205	202	229	231	250	222	192	216	173	15	25	170	2,126
Positions Filled Out of City—Male.....	8	18	10	10	12	20	77	120	15	30	88	18	426
Positions Filled Out of City—Female.....	15	28	35	42	40	30	30	40	20	185	186	23	674

TABLE NO. 41—STATEMENT OF THE BUSINESS TRANSACTED BY THE BUTTE FREE EMPLOYMENT OFFICE FOR THE YEAR 1917.

APPLICATIONS AND POSITIONS CLASSIFIED	YEAR 1917.												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Applications for Work—Male.....	300	290	300	290	274	268	186	145	122	149	162	202	2,689
Applications for Work—Female.....	240	230	250	230	378	493	340	274	291	358	400	315	3,799
Applications for Help—Male.....	97	110	120	140	178	109	92	94	86	131	138	114	1,409
Applications for Help—Female.....	296	220	240	220	464	470	347	309	222	402	424	403	4,017
Positions Filled—Male.....	86	100	115	140	172	103	92	94	86	131	138	114	1,371
Positions Filled—Female.....	175	168	190	210	359	382	287	265	266	343	382	304	3,331
NATURE OF POSITIONS FILLED—MALE													
Miners, Section Men and Laborers.....	68	85	78	100	153	97	85	79	82	126	133	110	1,196
Ranch Hands and Milkers.....	18	15	37	40	16	6	7	15	4	5	5	4	172
Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
FEMALE													
Chambermaids and Domestic.....	90	100	90	100	273	342	262	241	214	227	327	204	2,470
Hotel and Restaurant Help.....	85	68	100	110	80	40	25	24	52	116	55	100	855
Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Positions Filled in City—Male.....	147	88	78	100	169	97	85	79	82	126	133	110	1,223
Positions Filled in City—Female.....	76	236	150	140	347	368	275	265	230	228	334	298	3,018
Positions Filled Out of City—Male.....	10	12	37	40	3	6	7	15	4	5	5	4	148
Positions Filled Out of City—Female.....	28	32	40	70	6	14	12	16	36	15	18	6	293

TABLE NO. 44—GENERAL SUMMARY, BY YEARS, OF THE BUSINESS TRANSACTED BY THE BUTTE FREE EMPLOYMENT OFFICE.

Year	Applications for Help	Applications for Work	Total Male Help Supplied	Total Female Help Supplied	Total Positions Filled
1905	11,653	13,555	5,614	4,660	10,274
1906	10,379	12,798	4,276	3,974	8,350
1907	8,317	9,429	3,660	2,610	6,270
1908	5,445	6,011	1,895	2,417	4,312
1909	5,191	6,258	1,846	2,644	4,490
1910	5,262	7,224	2,248	2,140	4,388
1911	3,019	5,452	1,179	1,424	2,603
1912	3,496	3,386	1,112	1,666	2,778
1913	3,434	3,302	998	1,661	2,659
1914	2,551	3,798	675	1,433	2,108
1915	3,458	5,329	902	2,134	3,036
1916	4,983	6,733	1,359	2,804	4,163
1917	5,426	6,488	1,371	3,331	4,702

TABLE NO. 45—LIVESTOCK IMPORTATIONS DURING THE YEAR.

(Compiled by State Veterinarian)

	Horses	Cattle	Sheep	Swine
Arizona				
Arkansas	3	351		
Alabama	1			
California	51	2	1	
Canada				
Colorado	92	64	4,280	
District of Columbia				
Florida				
Georgia				
Idaho	69	35		
Illinois	202	94		42
Indiana	8	9	2	1
Iowa	579	1,062	30	61
Kansas	64	62		
Kentucky	5	1		
Louisiana				
Michigan	5			
Maryland		13		
Minnesota	889	1,279	9	
Missouri	51	101		14
Nebraska	343	834	35	21
Nevada				
New Mexico	3	335		
New York				
North Carolina				
North Dakota	1,322	714	8	65
Ohio	6	9	8	
Oklahoma	6	1		
Oregon	431	315	40,621	1
Pennsylvania				
South Dakota	360	631	157	29
Tennessee				1
Texas	23	1,062		
Utah	133	327	3	
Vermont				
Washington	1,018	5,250	13,830	184
Wisconsin	223	253	6	15
Wyoming	172	7,121	463	112
Totals	6,059	19,925	59,453	576

TABLE NO. 46—SHIPMENTS OF CATTLE OUT OF THE STATE, INSPECTIONS AND NUMBER OF ARRESTS MADE FOR VIOLATING THE STOCK LAWS IN MONTANA, BY YEARS, SINCE 1885.

(Compiled by the State Board of Stock Commissioners)

Year	Cattle Output	Number Inspections	Number Arrests
1885	70,089	8	19
1886	119,620	8	43
1887	82,134	9	13
1888	167,602	5	6
1889	123,880	5	20
1890	174,035	9	21
1891	250,000	10	14
1892	203,000	13	4
1893	279,158	14	13
1894	302,655	12	23
1895	206,460	16	29
1896	254,864	16	52
1897	252,162	15	81
1898	232,225	15	72
1899	203,499	21	60
1900	160,055	21	65
1901	151,986	23	91
1902	230,000	23	98
1903	210,573	20	109
1904	288,775	33	121
1905	267,966	34	129
1906	276,722	26	86
1907	214,642	7	65
1908	241,320	7	63
1909	255,178	7	63
1910	243,662	7	165
1911	205,873	14	192
1912	188,675	18	100
1913	179,886	23	124
1914	158,623	29	194
1915	173,936	23	161
1916	227,828	25	157
1917	333,056	19	178

TABLE NO. 47 —STATISTICS OF SHEEP AND WOOL. WOOL PRODUCT OF THE UNITED STATES, 1917, ACCORDING TO THE LATEST OFFICIAL RETURNS AND ESTIMATES.

THIRD BIENNIAL REPORT

169

States	Quality	Number of Pieces	Estimate of U. S. Department of Agriculture		Per Cent Of Shrinkage	Equivalent Quantity of Scoured Wool Pounds	Average Value per Scoured Pound October 1			Total Value, 1917	States
			Average Weight per Piece	Wool Product, Raw Pounds			1915 Cents	1916 Cents	1917 Cents		
Maine.....	10% fine, 90% medium	126,000	6.9	883,000	42	483,140	64	80	135	\$ 652,239	Maine
New Hampshire.....	5% fine, 95% medium	27,000	6.7	183,000	43	104,310	63	78	134	139,775	New Hampshire
Vermont.....	20% fine, 80% medium	80,000	7.3	597,000	48	310,440	64	81	140	434,610	Vermont
Massachusetts.....	Medium	18,000	6.5	119,000	42	69,020	64	80	135	95,177	Massachusetts
Rhode Island.....	Medium	4,000	6.2	24,000	41	14,160	64	80	135	19,116	Rhode Island
Connecticut.....	Medium	14,000	5.5	75,000	41	44,250	64	80	135	59,738	Connecticut
New York.....	30% fine, 70% medium	517,000	6.8	3,514,000	48	1,827,280	64	85	145	2,639,556	New York
New Jersey.....	Medium	15,000	5.2	80,000	41	47,200	65	85	145	68,440	New Jersey
Pennsylvania.....	60% fine, 40% medium	650,000	6.5	4,225,000	51	2,070,250	65	87	152	3,146,780	Pennsylvania
Delaware.....	Medium	5,000	5.8	31,000	41	18,290	64	80	135	24,692	Delaware
Maryland.....	Medium	126,000	6.0	758,000	41	447,220	64	80	135	603,707	Maryland
West Virginia.....	75% fine, 25% medium	540,000	5.0	2,695,000	49	1,374,445	65	87	152	2,089,156	West Virginia
Kentucky.....	Medium	619,000	4.8	2,969,000	38	1,840,780	65	80	135	1,485,053	Kentucky
Ohio.....	65% fine, 35% medium	1,886,000	7.4	13,223,000	52	6,683,040	67	86	150	10,024,560	Ohio
Michigan.....	25% fine, 75% medium	1,107,000	7.4	8,192,000	49	4,177,920	64	85	145	6,057,984	Michigan
Indiana.....	Medium	619,000	7.0	4,332,000	44	2,425,920	64	80	135	3,274,992	Indiana
Illinois.....	10% fine, 90% medium	490,000	7.9	3,855,000	47	2,043,150	63	81	137	2,799,116	Illinois
Wisconsin.....	5% fine, 95% medium	334,000	7.9	2,636,000	44	1,476,000	64	80	135	1,932,600	Wisconsin
Minnesota.....	5% fine, 95% medium	380,000	7.8	2,964,000	48	1,541,280	63	78	130	2,003,664	Minnesota
Iowa.....	10% fine, 90% medium	633,000	7.7	4,875,000	48	2,535,000	64	80	135	3,422,250	Iowa
Missouri.....	5% fine, 95% medium	684,000	7.0	4,810,000	43	2,741,000	63	80	134	3,672,940	Missouri
Virginia.....	Medium	8,874,000	6.95	61,890,000	47.7	32,274,995	.....	.....	.....	\$ 45,704,145	Virginia
North Carolina.....	Medium	450,000	4.6	1,862,000	38	1,154,440	64	81	137	\$ 1,611,528	North Carolina
South Carolina.....	Medium	145,000	3.8	553,000	40	331,800	63	75	132	437,976	South Carolina
Georgia.....	Medium	24,000	4.0	95,000	40	57,000	63	75	132	75,240	Georgia
Florida.....	Medium	157,000	2.9	455,000	40	273,000	63	76	133	363,090	Florida
Alabama.....	Medium	127,000	2.8	355,000	40	213,000	62	75	132	281,160	Alabama
Mississippi.....	Medium	106,000	3.3	350,000	39	213,500	62	75	132	281,820	Mississippi
Louisiana.....	Medium	149,000	3.3	491,000	39	299,510	62	75	132	395,353	Louisiana
Arkansas.....	Medium	156,000	3.6	560,000	42	324,800	62	75	132	428,736	Arkansas
Tennessee.....	Medium	78,000	4.5	350,000	42	203,000	60	74	130	263,900	Tennessee
.....	.....	423,000	4.2	1,776,000	39	1,083,360	64	78	134	1,451,702	.....
Kansas.....	Fine, fine med., and med.	1,815,000	3.77	6,847,000	39.3	4,153,410	.....	.....	.....	\$ 5,590,505	Kansas
Nebraska.....	Fine, fine med., and med.	190,000	7.6	1,450,000	62	551,000	61	85	150	\$ 826,500	Nebraska
.....	.....	256,000	7.5	1,922,000	63	711,140	61	85	150	\$ 1,066,710	.....

TABLE NO. 47 —STATISTICS OF SHEEP AND WOOL. WOOL PRODUCT OF THE UNITED STATES, 1917, ACCORDING TO THE LATEST OFFICIAL RETURNS AND ESTIMATES.

States	Quality	Number of Fleeces	Estimate of U. S. Department of Agriculture		Per Cent of Shrinkage	Equivalent Quantity of Scoured Wool Pounds	Average Value per Scoured Pound October 1			Total Value, 1917	States
			Average Weight per Fleece Pounds	Wool Product, Pounds			1915 Cents	1916 Cents	1917 Cents		
South Dakota	Fine, fine med., and med.	512,000	7.3	3,738,000	60	1,495,200	62	83	152	2,272,704	South Dakota
North Dakota	Fine, fine med., and med.	192,000	7.4	1,418,000	61	553,020	62	86	150	829,530	North Dakota
Montana	Fine, fine med., and med.	495,000	7.6	2,342,000	62	860,960	67	86	155	13,734,488	Montana
Wyoming	Fine, fine med., and med.	3,705,000	8.2	30,380,000	65	10,633,000	66	85	153	16,268,490	Wyoming
Idaho	Fine, fine med., and med.	1,980,000	7.6	15,000,000	67	5,850,000	67	85	153	8,950,500	Idaho
Washington	Fine, fine med., and med.	1,594,000	8.4	4,988,000	67	1,646,040	66	84	151	2,485,520	Washington
Oregon	Fine, fine med., and med.	1,710,000	8.2	13,200,000	65	4,620,000	66	85	156	7,207,200	Oregon
Nevada	33% fall, 67% spring	1,740,000	7.6	12,180,000	64	4,384,000	65	83	150	6,576,000	Nevada
California	Fine, fine med., and med.	2,653,000	7.8	16,000,000	68	3,264,000	67	85	153	4,993,920	California
Utah	Fine, fine med., and med.	2,438,000	7.6	15,000,000	63	5,772,000	64	84	151	8,715,720	Utah
Colorado	Fine, fine med., and med.	1,378,000	6.5	8,820,000	61	3,439,800	61	82	150	5,159,700	Colorado
Arizona	Fine, fine med., and med.	3,897,000	5.8	18,422,000	66	2,969,160	65	82	153	3,211,715	Arizona
New Mexico	Fine, fine med., and med.	1,435,000	7.9	10,045,000	65	3,515,750	63	83	150	9,395,200	New Mexico
Texas	25% fall, 75% spring	1,435,000	7.9	10,045,000	65	3,515,750	63	83	150	5,303,625	Texas
Okl. & Ind. Ter.	Fine, fine med., and med.	77,000	6.5	500,000	63	183,000	63	82	150	277,500	Oklahoma
Totals		24,658,000	7.18	177,036,000	65.7	62,683,550				\$ 97,275,022	Totals
Pulled Wool		35,347,000	6.95	245,573,000	59.2	100,270,055	65.7	84.6	\$ 1.482	\$148,569,672	Pulled Wool
Total Product, 1917				40,000,000	30	28,000,000	60.5	75.5	1.507	42,190,000	Total Product, 1917
				289,573,000		128,270,055	64.5	82.5	1.487	\$190,759,672	
							*27.2	*37.4	*.673		

*Equivalent value, unwashed.

TABLE NO. 48—STATISTICS OF SHEEP AND WOOL. NUMBER OF SHEEP IN THE WORLD, ACCORDING TO THE LATEST AVAILABLE REPORTS AND ESTIMATES.

Country	Year	Number of Sheep
North America:		
United States: Continental.....	1917	*48,483,000
Noncontiguous, except Philippine Islands:		
Hawaii		79,719
Porto Rico		6,363
Alaska		199
Total United States.....		48,566,281
Canada	1916	1,965,101
Newfoundland		97,597
Mexico	1902	3,424,430
Guatemala		514,000
Other Central America.....		124,044
Cuba		9,982
British West Indies.....		27,980
Dutch West Indies.....		22,643
Guadeloupe		11,731
		6,197,508
Total North America.....		54,763,789
South America:		
Argentina		75,000,000
Brazil	1913	10,653,000
Bolivia	1910	1,454,729
Chile	1914	4,602,317
Colombia		746,000
Uruguay	1915	25,000,000
Venezuela		177,000
Falkland Islands		705,000
Other South America.....		300,000
Total South America.....		118,638,046

*Includes Lambs.

TABLE NO. 49—STATISTICS OF SHEEP AND WOOL. NUMBER OF SHEEP IN THE WORLD, ACCORDING TO THE LATEST AVAILABLE REPORTS AND ESTIMATES.

Country	Year	Number of Sheep
Europe:		
Austria Hungary	1910-13	12,337,867
Belgium .....	.....	235,722
Bulgaria	1910	8,632,388
Denmark, Iceland, and Faroe Islands.....	1914	1,246,000
Finland .....	.....	1,309,000
France	1917	10,845,280
Germany	1915	5,073,473
Greece .....	.....	3,547,000
Italy	1908	11,162,926
Montenegro .....	.....	400,000
Netherlands .....	.....	520,275
Norway .....	.....	1,398,000
Portugal	1906	3,072,988
Roumania	1911	5,269,493
Russia in Europe.....	1914	42,736,000
Saxony .....	.....	58,185
Servia	1910	3,818,997
Spain	1915	15,994,608
Sweden	1912	988,000
Switzerland	1912	161,000
Turkey	1910	21,190,000
United Kingdom, including Isle of Man, etc....	1915	27,964,000
All Other Europe.....	.....	20,000
Total Europe .....	.....	177,931,207
Asia:		
British India:		
British Provinces	1914	23,091,955
Native States	1914	8,306,000
Total .....	.....	31,397,955
Ceylon	1913	64,000
Cyprus	1912	265,000
Japan	1917	2,786
Philippine Islands	1913	103,000
Russia in Asia.....	1912	33,331,000
Turkey in Asia.....	1912	27,094,678
Other Asia .....	.....	60,000
Total .....	.....	60,920,464
Total Asia .....	.....	92,318,419

TABLE NO. 50—STATISTICS OF SHEEP AND WOOL. NUMBER OF SHEEP IN THE WORLD, ACCORDING TO THE LATEST AVAILABLE REPORTS AND ESTIMATES.

Country	Year	Number of Sheep
Africa:		
Algeria	1912	8,338,023
Basutoland .....	.....	1,369,000
British East Africa .....	.....	6,550,000
German East Africa	1913	6,439,647
German South West Africa	1912	555,000
Madagascar	1911	168,000
Rhodesia	1911	300,000
Soudan (Anglo-Egyptian)	1909	830,000
Tunis	1914	1,119,000
Uganda Protectorate	1914	542,000
Cape of Good Hope, Natal, Orange Free State, Transvaal (Union of South Africa)....	1913	35,710,843
All Other Africa .....	.....	3,000,000
Total Africa .....	.....	64,921,513
Oceania:		
Australia	1916	71,426,403
New Zealand	1916	24,753,324
Total Australasia .....	.....	96,179,727
Other Oceania .....	.....	10,000
Total Oceania .....	.....	96,189,727
Total World .....	.....	604,762,701

The total number of sheep in the world as reported one year ago was 615,536,418 against 604,762,701 at the present time, and shows a net decrease of 10,773,717, although as has been said, the reduction must be much greater, because of the war's demands, and there is also a prevalent impression that the Argentine flocks are considerably smaller than the figures given. The figures for Australasia indicate an increase of 1,783,556 in her flocks.

TABLE NO. 51—WOOL PRODUCTION OF THE WORLD.

Country	Wool
	Pounds
North America:	
*United States	285,573,000
British Provinces	11,400,000
Mexico	6,500,000
Total North America	303,473,000
Central America and West Indies	750,000
South America:	
Argentina	258,250,000
Brazil	35,000,000
Chile	20,000,000
Peru	9,420,707
Falkland Islands	3,200,000
Uruguay	139,250,000
All Other	5,000,000
Total South America	470,120,707
Europe:	
Austria-Hungary	41,600,000
France	65,000,000
Greece	16,000,000
Germany	25,600,000
Italy	21,500,000
Portugal	10,000,000
Russia in Europe	320,000,000
Spain	52,000,000
Turkey and Balkan States	90,500,000
United Kingdom	121,200,043
All Other	30,000,000
Total Europe	793,400,043
Asia:	
British India	60,000,000
China	50,000,000
Persia	12,146,000
Russia in Asia	60,000,000
Turkey in Asia	90,000,000
All Other	1,000,000
Total Asia	273,146,000
Africa:	
Algeria	33,184,000
British Africa	157,761,470
Tunis	3,735,000
All Other	13,000,000
Total Africa	207,680,470
Oceania:	
Australia and Tasmania	547,972,000
New Zealand	193,830,000
†Total Australasia	741,802,000
All Other	100,000
Total Oceania	741,902,000
Total World	2,790,472,220

*Estimate of the U. S. Department of Agriculture.

†Australian figures heretofore have not included quantities used in that continent.

TABLE NO. 52—ALTITUDE IN MONTANA AT RAILROAD STATIONS.

Name of Place	Elevation	Name of Place	Elevation
Alder	5,128	Hunters Hot Springs.....	4,234
Alhambra	4,265	Joliet	3,728
Anaconda	5,331	Joplin	3,300
Augusta	3,500	Judith Gap	4,604
Avon	4,702	Kalispell	2,946
Belgrade	4,467	Kootenai Falls	1,984
Belt	3,560	Lambert	2,342
Belton	3,210	Laurel	3,311
Big Sandy	2,699	Lewistown	3,893
Big Timber	4,094	Libby	2,055
Billings	3,139	Livingston	4,487
Blackfoot	4,142	Logan	4,114
Blossburg	5,573	Malta	2,252
Boulder	4,943	Manhattan	4,255
Bozeman	4,773	Miles City	2,377
Bridger	3,664	Missoula	3,223
Butte	5,536	Mondak	1,906
Cascade	3,363	Moore	4,185
Chester	3,132	Nelhart	5,618
Chinook	2,404	Paradise	2,499
Choteau	3,815	Phillipsburg	5,195
Clyde Park	4,821	Plains	2,482
Columbia Falls	3,098	Plentywood	2,044
Columbus	3,624	Pony	5,443
Corwin Springs	5,133	Poplar	1,960
Crow Agency	3,041	Ravalli	2,714
Darby	3,881	Red Lodge	5,557
Deer Lodge	4,530	Rosebud	2,501
Dillon	5,109	Saint Regis	2,647
East Helena	3,901	Scobey	2,456
Elliston	5,061	Shelby	3,270
Eureka	2,558	Sheridan	5,079
Fairview	1,910	Sidney	1,924
Fallon	2,231	Stanford	2,257
Forsyth	2,535	Stevensville	3,322
Fromberg	3,538	Terry	2,264
Galata	3,089	Thompson Falls	2,462
Gardiner	5,287	Three Forks	4,081
Garrison	4,344	Townsend	3,833
Glasgow	2,092	Troy	1,876
Glendive	2,091	Ulm	3,339
Grass Range	3,480	Victor	3,414
Great Falls	3,323	Warm Springs	4,832
Gregson	5,102	Whitehall	4,371
Hamilton	3,583	Wibaux	2,674
Hardin	2,966	Wilsall	5,048
Harlem	2,366	Wolf Creek	3,554
Harlowton	4,163	Wolf Point	1,999
Havre	2,480	Xenia	2,868
Helena	3,963	Yakt	1,845
Hilger	4,065	Yates	2,770
Hobson	4,061	Zurich	2,375

MOUNTAIN ELEVATIONS.

Name	Elevation	Name	Elevation
Blackmore mountain	10,196	Liberty peak	9,162
Bridger peak	9,106	Lone mountain	11,194
Cleveland mountain	10,438	McCloud peak	8,850
Cliff mountain	9,120	McDonald mountain	9,800
Conical Mt., Crazy Mt.	10,737	Monture	7,400
Cowen mountain	11,190	Needles	10,933
Crazy peak	11,178	Old Baldy mountain	9,572
Dearborn mountain	8,480	Pentagon mountain	9,400
Delano mountain	10,200	Pyramid	10,720
Douglas mountain	11,300	Rocky peak	9,350
Electric peak	11,155	Scapegoat mountain	9,210
Elk peak	8,696	Sheep mountain	10,628
Ellis mountain	8,226	Siyea mountain	10,004
Emigrant peak	10,969	Sphinx mountain	10,844
Gallatin mountain	10,967	Stimson mountain	10,155
Haystack peak	10,990	Stonewall mountain	9,300
Hilgard	11,000	Thunder mountain	7,301
Holland	10,400	Twin peaks	10,246
Hyalite peak	10,110	Ward peak	10,267
Jackson mountain	10,023	Wedge mountain	10,508

TABLE NO. 53

MONTANA GENERAL

Office of Sec

Official Abstract of Votes Cast at the General

Helena, Montana

COUNTIES	United States Senator			Associate Justice of the Supreme Court		State Auditor			Railway and Public Service Commission	
	Oscar M. Lanstrum	Thomas J. Walsh	Miss Jeanette Rankin	Charles H. Cooper	John A. Matthews	Geo. P. Porter	Rufus G. Poland	Joseph Kirschwing	Lee Dennis	J. H. Ba
	Rep.	Dem.	Nat.	Rep.	Dem.	Rep.	Dem.	Nat.	Rep.	Dem.
Beaverhead	845	762	208	930	783	928	742	52	958	70
Big Horn	196	257	105	264	212	234	200	58	264	22
Blaine	447	618	354	766	543	609	504	90	598	72
Broadwater	472	668	199	298	1,029	429	686	47	530	64
Carbon	1,151	979	261	1,192	970	1,296	849	46	1,372	80
Carter	494	420	178	496	439	493	394	27	503	44
Cascade	2,349	3,215	884	2,494	2,663	2,321	2,371	447	3,918	2,06
Chouteau	693	1,268	740	1,314	1,114	1,120	1,067	152	1,212	1,35
Custer	1,051	836	224	1,058	863	1,005	836	104	1,120	78
Dawson	840	772	336	1,066	694	980	619	93	1,012	70
Deer Lodge	1,340	2,123	943	1,602	2,339	1,646	1,956	287	1,807	2,06
Fallon	558	408	327	729	454	652	412	89	689	52
Fergus	1,433	2,164	770	1,849	2,060	1,257	2,649	163	2,083	1,94
Flathead	1,876	1,435	1,185	2,303	1,597	1,981	1,358	617	2,011	1,88
Gallatin	1,368	1,949	563	1,513	1,947	1,524	1,711	175	1,716	1,70
Granite	432	547	162	462	550	479	480	42	509	51
Hill	829	1,332	1,590	2,172	1,728	1,524	1,564	220	1,559	2,31
Jefferson	536	646	275	583	727	562	670	73	616	71
Lewis and Clark	2,554	2,381	380	1,963	2,922	1,914	2,748	125	2,521	2,30
Lincoln	564	669	357	657	656	621	577	92	671	63
Madison	733	878	291	838	924	852	816	115	927	83
Meagher	271	374	37	160	497	277	307	1	320	27
Mineral	149	360	340	382	334	295	325	60	276	43
Missoula	1,902	2,283	1,696	2,382	2,725	2,289	2,324	754	2,541	2,62
Musselshell	849	863	379	1,046	798	1,021	715	80	1,128	74
Park	1,065	940	403	1,241	898	1,192	763	182	1,258	86
Phillips	739	403	369	881	424	811	400	75	767	60
Powell	654	757	328	722	804	755	677	44	955	60
Prairie	435	237	104	424	272	409	228	22	441	26
Ravalli	1,091	1,011	598	1,157	1,188	1,271	900	213	1,308	1,10
Richland	376	409	502	724	363	503	327	119	513	58
Rosebud	488	553	123	599	445	587	400	41	663	41
Sanders	498	805	599	892	834	680	830	184	682	1,02
Sheridan	1,020	924	1,335	1,818	957	1,091	846	553	1,271	1,33
Silver Bow	4,587	5,877	5,798	6,579	6,699	6,121	5,717	2,448	5,947	7,12
Stillwater	504	412	97	537	390	522	367	24	548	37
Sweet Grass	331	266	42	343	217	344	199	13	391	17
Teton	1,064	1,208	548	1,338	1,140	1,201	1,011	215	1,352	1,19
Toole	339	525	376	619	448	442	411	120	513	59
Valley	657	664	933	1,219	734	725	640	576	868	1,25
Wheatland	485	474	101	325	695	492	420	21	554	40
Wibaux	297	239	221	371	249	333	248	41	369	30
Yellowstone	1,667	1,749	752	2,146	1,669	1,969	1,513	313	2,151	1,64
TOTAL	40,229	46,160	26,013	50,454	47,994	45,757	42,777	9,213	51,412	47,93

THIRD BIENNIAL REPORT

177

ELECTION RETURNS.

Gubernatorial.

Election Held In Montana, November 5, 1918.

December 24, 1918.

Representatives in Congress						Referendum Constitutional Amend. and Initiative					
First District			Second District			Terminal Elevator Bonds		Exemption of Mortgages		Initiative No. 12	
Frank B. Linderman	John M. Evans	Tom Kane	Carl W. Riddick	Harry B. Mitchell	Joseph Pope	For	Against	For	Against	For	Against
Rep.	Dem.	Nat.	Rep.	Dem.	Nat.						
920	788	53				685	524	832	459	704	629
			232	226	66	272	154	287	156	241	174
			690	537	86	728	319	790	295	509	497
472	719	54				543	406	618	347	558	384
			1,268	941	75	1,031	733	1,210	673	929	897
			504	445	30	393	448	592	327	453	403
			2,264	3,374	155	4,653	839	3,525	1,555	2,684	2,197
			999	1,397	103	1,792	456	1,617	655	1,245	883
			1,066	854	103	922	787	1,087	677	944	857
			949	719	133	865	622	1,034	650	826	711
1,492	2,345	321				1,820	1,233	1,997	1,272	1,934	1,338
			653	457	79	576	389	635	360	470	475
			1,846	2,259	157	2,344	899	1,987	1,259	1,772	1,672
2,205	1,549	438				2,009	1,157	2,223	1,203	1,658	1,658
1,554	1,965	167				1,506	1,413	1,802	1,109	1,544	1,671
454	593	43				396	442	511	380	429	463
			1,633	1,814	193	2,520	752	2,329	967	1,972	1,164
562	722	97				667	365	666	416	509	547
2,661	2,221	141				2,237	1,423	2,459	1,218	2,482	1,624
575	754	95				715	540	819	458	680	577
779	943	131				725	641	769	648	553	833
			271	330	4	247	210	346	168	204	304
251	450	83				397	226	369	279	377	246
2,462	2,633	633				2,732	1,507	2,873	1,493	2,257	2,596
			1,018	820	122	1,025	544	1,046	572	749	808
			1,189	885	175	1,045	725	1,190	550	1,059	818
			818	465	89	788	289	798	347	591	475
695	898	62				715	618	852	517	624	757
			454	218	27	353	221	365	218	333	250
1,228	1,074	320				1,319	583	1,340	676	919	1,173
			557	343	102	607	335	731	363	608	385
			633	392	53	511	383	623	312	437	471
655	1,002	132				881	423	912	439	735	550
			1,438	934	187	1,564	820	1,546	901	1,458	863
5,433	6,874	2,565				6,981	4,896	7,029	5,070	6,945	5,039
			549	357	61	484	262	508	294	363	437
			333	249	23	242	247	356	156	156	338
			1,227	1,208	152	1,959	401	1,601	704	1,293	950
			492	525	68	729	250	721	257	486	413
			1,008	825	102	1,315	448	1,270	577	1,031	706
			561	437	17	646	188	614	255	368	470
			370	221	81	302	319	360	192	267	269
			1,938	1,594	343	1,974	1,193	2,059	1,190	1,946	1,347
22,398	25,530	5,335	24,960	22,826	2,786	54,215	29,630	55,296	30,614	46,302	39,320

MISCELLANEOUS INFORMATION

OFFICIAL DIRECTORY

United States Officials.

Judge U. S. District Court.....	George M. Bourquin.....	Butte
U. S. District Attorney.....	E. C. Day.....	Helena
Asst. U. S. District Attorney.....	Walter J. Patterson.....	Helena
Asst. U. S. District Attorney.....	James Baldwin.....	Butte
Clerk U. S. District Court.....	Charles Garlow.....	Helena
U. S. Marshal	Joseph Ashbridge.....	Helena
Master in Chancery	Oliver T. Crane.....	Helena
Master in Chancery	Clarence Davidson.....	Butte
Collector of Customs.....	A. J. King.....	Great Falls
Immigration Inspector	Chas. K. Andrews.....	Helena
Assayer in charge U. S. Assay Office.....	Herbert Goodall.....	Helena
Surveyor General	Henry Gerharz	Helena
Collector of Internal Revenue	W. C. Whaley.....	Helena
Section Director U. S. Weather Bureau.....	W. A. Mitchell.....	Helena
Dist. Eng. U. S. Geolog. Survey (Water Re.).....	W. A. Lamb.....	Helena
Chief Clerk Ry. Mail Service	Geo. N. Fuller.....	Helena
Supervising Eng. U. S. Reclamation Service.....	Willis Egleston.....	Helena
U. S. Fuel Administrator	M. H. Gerry.....	Helena
U. S. Food Administrator	Alfred E. Atkinson.....	Bozeman
Director U. S. Employment Service	Scott Leavitt.....	Great Falls
Special Representative U. S. Labor Department.....	Thos. Topping.....	Helena

TERMS OF FEDERAL COURT.

At Helena—January 2, June 15.
At Missoula—April 1, October 1.
At Great Falls—February 15, August 1.
At Butte—May 1, October 18.
At Billings—June 1, December 15.

U. S. LAND OFFICE OFFICIALS.

REGISTER	RECEIVER	LAND OFFICE
Jos. Binnard	Frank F. Steel.....	Helena
F. W. Appleton	Jas. P. Bole.....	Bozeman
G. W. Myers	J. S. Hamilton.....	Miles City
Frank M. M'Haffie	W. C. McMurry.....	Missoula
F. O. Williams	Owen E. Thomas.....	Kalispell
H. J. Kelly	A. Hogeland	Lewistown
J. A. Barker	Thos. Corbally.....	Great Falls
Frank T. Woods	E. J. McLean	Billings
Thos. R. Jones	E. C. Hargadine	Glasgow
M. W. Hutchinson	Jake A. Mayer	Havre

REFEREES IN BANKRUPTCY.

REFEREE	RESIDENCE
S. A. Ballet	Helena
F. W. Haskins	Butte
Charles A. Hills	Missoula
A. H. Gray	Great Falls
H. A. Frith	Billings
J. E. Rockwood	Kalispell
E. M. Niles	Livingston

SUPERINTENDENTS OF INDIAN SCHOOLS IN MONTANA

H. O. Power	Supt. Blackfeet School.....	Browning
Theodore Sharp	Supt. Crow School.....	Crow Agency
Monroe	Supt. Flathead School.....	Dixon
H. E. Mossman	Supt. Fort Belknap School.....	Harlem
John A. Buntin	Supt. Fort Peck School.....	Poplar
	Supt. Tongue River School.....	Lame Deer

DIRECTORY OF STATE OFFICIALS. CONGRESSIONAL DELEGATION.

Office	Name and Residence	Term Expires
United States Senator.....	Henry L. Myers, Hamilton.....	March 4, 1923
United States Senator.....	T. J. Walsh, Helena.....	March 4, 1925
Representative	Carl W. Riddick, Lewistown.....	March 4, 1921
Representative	John M. Evans, Missoula.....	March 4, 1921

STATE SUPREME COURT.

Name	Position	Elected	Term Expires
Theodore Brantley.....	Chief Justice.....	Nov. 8, 1910.....	Jan. 2, 1923
William L. Holloway.....	Associate Justice.....	Nov. 3, 1914.....	Jan. 4, 1921
Chas. H. Cooper.....	Associate Justice.....	Nov. 6, 1912.....	Jan. 1, 1925

Clerk of Supreme Court, J. T. Carroll.
 Marshal of Supreme Court, M. W. Race.
 Stenographer, A. C. Schneider.
 Attendant, W. O. Craig.

MEMBERS OF THE SENATE.

County	Name	Politics	Residence
Beaverhead	*George Featherly	R.....	Dillon
Big Horn	*G. F. Burla	D.....	Hardin
Blaine	*L. B. Taylor	R.....	Lloyd
Broadwater	C. N. Burgess	D.....	Townsend
Carbon	*D. G. O'Shea	D.....	Red Lodge
Carter	J. W. Craig	R.....	Piniele
Cascade	J. M. Burlingame	R.....	Great Falls
Chouteau	V. E. Lewis	R.....	Fort Benton
Custer	*Rolla Heren	R.....	Miles City
Dawson	*George McCone	R.....	Glendive
Deer Lodge	*J. B. Gnose	R.....	Anaconda
Fallon	F. S. Booth	R.....	Baker
Fergus	B. C. White	D.....	Buffalo
Flathead	Robert Pauline	R.....	Kalispell
Gallatin	*Geo. O. Arnold	D.....	Manhattan
Granite	J. R. Page	D.....	Philipsburg
Hill	*C. F. Morris	D.....	Havre
Jefferson	H. H. Parker	D.....	Boulder
Lewis & Clark.....	Park Smith	R.....	Helena
Lincoln	F. A. Long	R.....	Eureka
Madison	O. H. Junod	R.....	Sheridan
Meagher	J. T. Wood	R.....	White Sul. Spgs.
Mineral	G. R. Cooper	R.....	St. Regis
Missoula	Ed Donlan	R.....	Missoula
Musselshell	*Dan Slayton	R.....	Lavina
Park	*Dan Healy	D.....	Livingston
Phillips	*Dr. G. H. Clay	R.....	Malta
Powell	*C. H. Williams	R.....	Deer Lodge
Prairie	*W. S. Haley	R.....	Terry
Ravalli	Frank Cone	R.....	Hamilton
Richland	J. W. Anderson	R.....	Sidney
Rosebud	J. E. Edwards	R.....	Forsyth
Sanders	J. F. McKay	D.....	Columbia Falls
Sheridan	Henry Lowe	R.....	Culbertson
Silver Bow	H. A. Gallwey	D.....	Butte
Stillwater	J. H. Leuthold	R.....	Park City
Sweet Grass	*Henry Ellingsen	R.....	Big Timber
Teton	T. O. Larson	R.....	Chouteau
Toole	T. L. Clark	D.....	West Butte
Valley	John Slattery	R.....	Glasgow
Wheatland	J. E. Foster	R.....	Harlowton
Wibaux	J. C. Kinney	R.....	Wibaux
Yellowstone	F. B. Connelly	R.....	Billings

*Holders.

HOUSE OF REPRESENTATIVES.

County	Name	Politics	Residence
Beaverhead	Jesse W. Fineley	D.	Jackson
Big Horn	W. J. Scott	R.	Hardin
Blaine	Jas. Griffin	R.	Chinook
Broadwater	Hugh Broderick	D.	Townsend
Carbon	C. J. Baldwin	R.	Bridger
	Wallace Bent	D.	Warren
	Albert Budas	R.	Red Lodge
Carter	D. A. Holt	R.	Ekalaka
Cascade	Louis Newman	D.	Great Falls
	E. H. Cooney	R.	Great Falls
	W. W. Meigs	R.	Great Falls
	J. W. Roberts	R.	Great Falls
	H. W. Brown	R.	Cascade
Chouteau	M. Jones	R.	Great Falls
	W. R. Felton	R.	Geraldine
	C. Crumpacker	R.	Carter
Custer	Chas. Stevens	R.	Highwood
	N. H. Fuller	R.	Miles City
	F. T. Kelsey	R.	Moorehead
Dawson	J. B. Collins	R.	Miles City
	C. A. Resmussen	R.	Glendive
	E. M. Naylor	R.	Glendive
Deer Lodge	W. C. Anderson	R.	Jordan
	C. E. Johnson	R.	Anaconda
	C. A. Lemmon	D.	Anaconda
Fallon	J. L. Chrystal	D.	Anaconda
	C. C. Conser	R.	Plevna
Fergus	O. W. Beldon	R.	Lewistown
	John A. Wilson	R.	Denton
	H. C. Otten	R.	Lewistown
Flathead	Homer Goodsell	R.	Hobson
	P. F. Dodds	R.	Whitefish
	Emma A. Ingalls	R.	Kalispell
Gallatin	J. H. McAfee	R.	Kalispell
	J. B. Sinclair	R.	Kalispell
	M. W. Penwell	R.	Belgrade
Granite	H. S. Buell	R.	Bozeman
	Sam Crouch	D.	Three Forks
Hill	H. J. Faust	R.	Drummond
Hill	Jasper Haaland	R.	Joplin
Jefferson	M. J. Sullivan	D.	Alhambra
Lewis and Clark	Ray Church	D.	Helena
	William Muth	D.	Helena
	Thos. P. Wood	D.	Helena
	Moz Silverman	R.	Helena
Lincoln	Wm. Dryburgh	R.	Helena
	Charles A. Weil	D.	Eureka
Madison	A. J. Witcomb	R.	Twin Bridges
	Thos. J. Call	R.	Varney
Meagher	Jas. N. Stewart	D.	White Sul. Spgs.
Mineral	A. H. Franklin	D.	Superior
Missoula	A. N. Brandjord	D.	Ronan
	D. L. McQuarrie	R.	Missoula
	W. J. McCormick	R.	Missoula
	Ronald Higgins	R.	Missoula
Musselshell	James A. Walsh	D.	Missoula
	James Hunter	R.	Klein
	Joseph Brooks	R.	Livingston
Park	Fred L. Gibson	R.	Livingston
Phillips	Dudley Jones	R.	Dodson
Powell	Edward Scharnikow	D.	Deer Lodge

MEMBERS OF THE HOUSE—(Continued)

County	Name	Politics	Residence
Prairie	A. O. Gullidge	R.....	Terry
Ravalli	Maggie Hathaway	D.....	Stevensville
	Geo. T. Baggs	R.....	Stevensville
Richland	J. E. Jones	R.....	Lambert
Rosebud	L. W. Carpenter	D.....	Lee
	J. R. Middleton	R.....	Hysham
Sanders	J. W. Gladden	R.....	Perma
Sheridan	John S. Nyquist	R.....	Poplar
Silver Bow	Don M. King	D.....	Butte
	Charles Boulware	D.....	Butte
	Hugh S. Carroll	D.....	Butte
	Arthur V. Corry	D.....	Butte
	W. F. Dunn	D.....	Butte
	J. J. Foley	D.....	Butte
	J. J. Harrington	D.....	Butte
	D. M. Kelly	D.....	Butte
	Wm. Meyer	D.....	Butte
	E. T. Mooney	D.....	Butte
Stillwater	G. H. Scott	R.....	Butte
	S. R. Treloar	R.....	Butte
Sweet Grass	O. M. Gudmensen	R.....	Rapelje
	E. J. Mo	R.....	Big Timber
Teton	Dr. H. T. Rhoades	R.....	Chouteau
	O. S. Forsyth	D.....	Cut Bank
Toole	W. M. Black	R.....	Shelby
Valley	C. C. Arnold	D.....	Opheim
	M. Sketman	D.....	Glasgow
	J. A. Mead	D.....	West Fork
Wheatland	Ward Beley	R.....	Harlowton
Wibaux	C. W. Reid	R.....	Been
Yellowstone	Frank Buchanan, Sr.	R.....	Hesper
	R. C. Dillavou	R.....	Billings
	B. G. Brockway	R.....	Billings
	E. Eaton	R.....	Polytechnic
	C. W. Demel	D.....	Billings

EXECUTIVE OFFICE.

Name	Office
*S. V. Stewart.....	Governor
W. W. McJowell.....	Lieutenant Governor
Will Aiken.....	Private Secretary to the Governor
Paul Raftery.....	Stenographer

*Term expires January 1, 1921.

SECRETARY OF STATE.

Name	Office
*C. T. Stewart.....	Secretary of State
E. B. Stewart.....	Deputy
C. L. Walker.....	Chief Clerk and stenographer
A. M. Kretlow.....	Clerk and Stenographer

*Term expires January 1, 1921.

STATE AUDITOR.

Name	Office
*Geo. P. Porter.....	State Auditor
Wm. A. Logan.....	Deputy Auditor
Stanley W. Haskins.....	Deputy Commissioner of Insurance
Robt. S. Mentrurn.....	State Fire Marshal
John Bebb.....	Deputy Fire Marshal
C. O. Tegnell.....	Chief Clerk
S. K. Ayers.....	Stenographer
Lorene McLaughlin.....	Stenographer

*Term expires January 1, 1921.

STATE TREASURER.

Name	Office
*H. L. Hart.....	State Treasurer
R. D. Miller.....	Deputy
H. L. Young.....	Corporation Tax Clerk
Kathryn Smith.....	Chief Clerk
Helen Shaw.....	Teachers' Retirement Fund Clerk
Ehsolda Von Heinrichshofen.....	Stenographer

*Term expires January 1, 1921.

ATTORNEY GENERAL.

Name	Office
*S. C. Ford.....	Attorney General
Frank Woody.....	Assistant
R. L. Mitchell.....	Assistant
A. A. Grorud.....	Assistant
I. W. Choate.....	Special Assistant
A. W. Heidel.....	Law Clerk
Lucile B. Luke.....	Stenographer
Farrar Kennett.....	Stenographer

*Term expires January 1, 1921.

DEPARTMENT OF PUBLIC INSTRUCTION.

Name	Office
*May Trumper.....	Supt. of Public Instruction.
L. R. Foote.....	Deputy
Adelaide M. Ayer.....	Rural School Inspector
Chas. M. Reinhoehl.....	Rural School Inspector
Lela L. Bryant.....	Clerk
Lillian Blachly.....	Stenographer
Marguerite Becker Craig.....	Stenographer

*Term expires January 1, 1921.

ADJUTANT GENERAL'S DEPARTMENT.

Name	Office
Phil Greenan.....	Adjutant General
John L. Tucker.....	Quartermaster's Corps

STATE GAME AND FISH WARDENS.

Name	Office	Address	District No.
*J. L. DeHart.....	State Game Ward	Helena	
Robt. H. Hill.....	Chief Deputy	Helena	
Al. Truscott.....	Salaried Deputy	Miles City.....	1
Cal. Robinson.....	Salaried Deputy	Columbia Falls.....	2
Geo. Garrity.....	Salaried Deputy	Alberton.....	4
F. E. Pilling.....	Salaried Deputy	Butte.....	7
J. W. Carney.....	Salaried Deputy	Dillon.....	8
Chas. C. Esgar.....	Salaried Deputy	Bozeman.....	9
A. B. Rosman.....	Salaried Deputy	Townsend.....	10
F. R. Baney.....	Salaried Deputy	Eureka.....	11
John T. Moore.....	Salaried Deputy	Choteau.....	12
E. C. Carruth.....	Salaried Deputy	Havre.....	13
W. D. Delphy.....	Salaried Deputy	Gt. Falls.....	14
T. A. Gerkin.....	Salaried Deputy	Roundup.....	15
P. W. Nelson.....	Salaried Deputy	Livingston.....	16
Geo. E. Mushbach.....	Salaried Deputy	Red Lodge.....	17
T. J. Thompson.....	Salaried Deputy	Forsyth.....	18
Chas. Marrs.....	Salaried Deputy	Jordan.....	19
Jos. A. Whetstone.....	Salaried Deputy	Opheim.....	20
D. M. Halford.....	Salaried Deputy	Ennis.....	Deputy at Large
W. W. Kennedy.....	Salaried Deputy	Missoula.....	Deputy at Large
J. A. Weaver.....	Salaried Deputy	Lewistown.....	Deputy at Large
Harry Morgan.....	Salaried Deputy	Ovando.....	Deputy at Large
Sallie MacNeill.....	Clerk	Helena	
Anna Dunne.....	Stenographer	Helena	

*Term expires April 1, 1921.

STATE LAND DEPARTMENT.

Name	Office
*Sidney Miller.....	Register of State Lands
Geo. B. Hopkins.....	Deputy Register
W. M. Robinson.....	Cashier
F. R. Sharp.....	Mortgage Clerk
E. B. Thompson.....	Clerk
Agnes M. Dorsey.....	Assistant Cashier
D. L. Noel.....	Lease Clerk
Grace Taylor.....	Assistant Lease Clerk
Dorothy O'Leary.....	Stenographer
**C. A. Whipple.....	State Land Agent

*Term expires March 20, 1921.

**Term expires Aug. 17, 1921.

STATE FORESTRY DEPARTMENT.

Name	Office
J. C. Van Hook.....	State Forester
H. L. Sherlock.....	Assistant
Chas. S. Cairncross.....	Field Representative

The State Forester's office is administered from the State Land Department.

MONTANA STATE TAX AND LICENSE COMMISSION.

Name	Office
Charles R. Leonard.....	Chairman, Butte
Wm. Lindsay.....	Commissioner, Glendive
David Hilger.....	Commissioner, Lewistown
John Edgerton.....	Secretary, Helena
Gertrude Ashby.....	Stenographer, Helena

STATE ENGINEER'S OFFICE.

Name	Office
*A. W. Mahon.....	State Engineer
C. S. Heidel.....	Hydrographer
G. R. Davies.....	Ex-Officio Secretary

*Term expires March 7, 1919.

STATE EXAMINER'S OFFICE.

Name	Office
*H. S. Magraw.....	State Examiner & Ex-Officio Superintendent of Banks
R. N. Hawkins.....	First Asst. State Examiner
J. W. Dawson.....	Second Asst. State Examiner
A. J. McIver.....	Deputy Asst. State Examiner
Vacancy.....	Asst. Superintendent of Banks
C. A. Haskins.....	Deputy Superintendent of Banks
J. W. Langley.....	Deputy Superintendent of Banks
G. A. Briebach.....	Deputy Superintendent of Banks
H. W. Sadler.....	Deputy Superintendent of Banks
Goldie Sheldon.....	Clerk
Katherine Haviland.....	Clerk

*Term expires March 4, 1921.

STATE DAIRY COMMISSION.

Name	Office
..m. H. Fluhr.....	State Dairy Commissioner, Helena
Geo. H. Webster.....	Deputy, Bozeman
E. W. Rynard.....	Deputy, Great Falls
.....	Stenographer

*Term expires April 1, 1921

STATE VETERINARY SURGEON.

Name	Office
*Dr. W. J. Butler.....	State Veterinary Surgeon, Helena
Dr. E. D. Nash.....	Chief Deputy, Helena
Dr. C. A. Hatterscheid.....	District Deputy, Glendive
Vacancy.....	District Deputy
Dr. N. B. Smith.....	District Deputy, Billings
Dr. H. E. Wilkins.....	District Deputy, Lewistown
Dr. J. W. Richardson.....	District Deputy, Malta
Dr. N. T. Gunn.....	District Deputy, Butte
Dr. J. C. Boyd.....	Special Deputy on Tuberculin Testing, Helena
Catherine Calk.....	Clerk, Helena
Olive Holloway.....	Stenographer, Helena

*Term expires March 4, 1921.

OFFICE OF STATE BOARD OF HEALTH.

Name	Office	Address
*Dr. W. F. Cogswell.....	Secretary	Helena
F. J. O'Donnell.....	Director Division Venereal Diseases	Helena
Agnes Cooney.....	Chief Clerk	Helena
Ruth Rickman.....	Stenographer	Helena
J. P. Riordan.....	Field Inspector	Butte

HYGENIC LABORATORY

Dr. A. H. McCray.....	Bacteriologist	Helena
Frances L. Minor.....	Stenographer	Helena

CHILD WELFARE DIVISION

Miss Margaret Hughes.....	Director	Helena
Edith G. Briscoe.....	Stenographer	Helena

FOOD AND WATER LABORATORY

Prof. W. M. Cobleigh.....	Chemist and Director	Bozeman
H. B. Foote.....	Bacteriologist	Bozeman
H. M. Shea.....	Food Analyst	Bozeman
Miss A. Montgomery.....	Stenographer	Bozeman

*Term expires March 15, 1919.

STATE HIGHWAY COMMISSION.

Commissioner	Address	Dist. No.
A. V. Gibson.....	Kalispell	1...Lincoln, Flathead, Sanders
D. T. Curran.....	Missoula	2...Mineral, Missoula, Ravalli
C. H. Buford.....	Va. City	3...Beaverhead, Madison, Gallatin
Oscar Rohn.....	Butte	4...Silver Bow, Deer Lodge, Granite
Frank Conley.....	Deer Lodge	5...Lewis & Clark, Broadwater, Powell, Jefferson
H. A. Templeton.....	Gt. Falls	6...Cascade, Musselshell, Wheatland, Meagher, Fergus
C. W. Morrison.....	Fort Benton	7...Chouteau, Teton, Hill, Toole
A. W. Mahon.....	Glasgow	8...Blaine, Sheridan, Valley, Phillips
Samuel Webb.....	Columbus	9...Carbon, Stillwater, Sweet Grass, Park
E. A. Richardson.....	Forsyth	10...Rosebud, Yellowstone, Big Horn
H. R. Wells.....	Miles City	11...Custer, Prairie, Fallon, Carter
T. F. Hagen.....	Glendive	12...Wibaux, Richland, Dawson

EXECUTIVE COMMITTEE OF STATE HIGHWAY COMMISSION

Name	Address
Oscar Rohn.....	Butte
H. R. Wells.....	Miles City
A. W. Mahon.....	Glasgow

OFFICERS.

Name	Office
Oscar Rohn.....	President
H. R. Wells.....	Vice President
A. W. Mahon.....	Secretary

LABOR AND INDUSTRY

ENGINEERING STAFF.

Name	Office
Paul D. Pratt	Chief Engineer
John N. Edy.....	Assistant Chief Engineer
Chas. A. Kyle.....	Designing Engineer
E. T. Harlow	Federal Aid Engineer
H. C. Amesbury.....	Reconnaissance Engineer
J. M. Roberts.....	Locating Engineer
Walter Mathews	District Engineer
E. H. Blakeslee	District Engineer
M. H. Gannon	District Engineer
Henry Wirth	Construction Foreman
L. V. Lockwood	Assistant Engineer
M. F. Curran	Assistant Engineer
R. S. Zahniser	Assistant Engineer
R. J. Ephland	Chief of Survey Parties
R. S. Holman	Chief of Survey Parties
Berney F. Kitt	Instrumentman
Farley Kimball	Instrumentman
W. J. Scofield.....	Chief Draftsman
A. C. Cramer	Draftsman
A. E. Lamb	Draftsman
Mark S. Hopkins	Draftsman
E. R. Bobbs	Draftsman
T. V. Hatcher	Inspector
B. W. Steele	Inspector
H. C. Sayre	Accountant
Cecile McCallum.....	Filing Clerk
Alta Sanders	Stenographer

DEPARTMENT OF AGRICULTURE AND PUBLICITY.

Name.	Office.
*Chas. D. Greenfield.....	Commissioner
A. L. Lemon.....	Chief Clerk
Anna I. Seller.....	Stenographer

*Term expires March 5, 1921.

DEPARTMENT OF LABOR AND INDUSTRY.

Name	Office.
*W. J. Swindlehurst.....	Commissioner
W. R. Baker.....	Chief Clerk
Mary A. Stokes.....	Stenographer

*Term expires March ,5 1921.

STATE INDUSTRIAL ACCIDENT BOARD.

Name	Office.
*A. E. Spriggs.....	Chairman
Geo. P. Porter.....	Commissioner
W. J. Swindlehurst.....	Commissioner
G. G. Watt.....	Secretary
Elsie Abrahamson	File Clerk
Edna Leopold	Stenographer
Helen Sanders	Stenographer
Pearl Florence	Stenographer

*Term expires May 1,1919.

ACCOUNTING DEPARTMENT, STATE INDUSTRIAL ACCIDENT BOARD.

R. S. McAllister	Chief Accountant
Florence Gebauer	Accountant
Sadie B. Bryson	Accountant

THIRD BIENNIAL REPORT

189

BUREAU OF SAFETY INSPECTION, STATE INDUSTRIAL ACCIDENT BOARD.

Name.	Title.	Address
G. A. Redding.....	Boiler Inspector	Helena
R. Moran	Boiler Inspector	Helena
R. A. Prater	Boiler Inspector	Billings
F. J. Coburn	Boiler Inspector	Butte
W. B. Orem	Quartz Mine Inspector.....	Butte
D. J. McGrath	Quartz Mine Inspector.....	Butte
Geo. Griffin	Coal Mine Inspector.....	Helena
E. B. Kennedy	Clerk of Bureau	Helena

BUREAU OF CHILD AND ANIMAL PROTECTION.

Office	Name	Address
*J. E. Neville	Secretary	Helena
Wiley Mountjoy	State Deputy	Helena
P. J. Gilligan	District Deputy	Butte
L. K. Devlin	District Deputy	Havre
Jas. K. Lang	District Deputy	Kalispell
Will Cave	District Deputy	Missoula
C. H. Perrine	District Deputy	Billings
A. E. DeCew	District Deputy	Great Falls
Ledora M. Hubbard	Clerk	Helena

*Term expires March 5, 1921.

RAILROAD AND PUBLIC SERVICE COMMISSION.

Name.	Office
*Daniel Boyle	Chairman
†J. E. McCormick.....	Commissioner
†Lee Dennis	Commissioner
Chas. P. Cotter	Secretary
W. J. Haynes	Rate Clerk
Thos. J. Hefling	Auditor
Frank M. Gallagher	Engineer
A. W. Winter	Reporter
V. E. Wilham	Safety Appliance Inspector
M. W. Dore	Safety Appliance Inspector
Inez B. Griswold	Stenographer
Geo. E. Cottrell	Navigation Inspector

†Term expires January 1, 1925.

*Term expires January 1, 1923.

†Term expires January 1, 1921.

STATE PAROLE COMMISSIONER.

Name.	Office
*J. E. Clifford	State Parole Commissioner

*Term expires April 1, 1921.

STATE ASYLUM FOR THE INSANE.

Name	Office	
*Dr. J. M. Scanland.....	Superintendent	Warm Springs
Dr. Harris A. Bolton	Assistant	Warm Springs

*Term Expires March 6, 1921.

STATE TUBERCULOSIS SANITARIUM.

Name	Office	Address
*Dr. A. D. Macdonald.....	Superintendent	Deer Lodge
Mrs. B. M. Ryab	Matron and Head Nurse.....	Deer Lodge

*Term expires November 19, 1920.

STATE BOARD OF EXAMINERS.

Members	Title	Organization
Samuel V. Stewart.....	Governor	President
C. T. Stewart	Secretary of State	Secretary
S. C. Ford	Attorney General	Member

Clerk of the Board, A. E. McFatrige.

STATE FURNISHING BOARD.

Name	Title	
Samuel V. Stewart.....	Governor	President
C. T. Stewart	Secretary of State	Secretary
S. C. Ford.....	Attorney General	Member

Clerk of the Board, A. E. McFatrige.

STATE BOARD OF LAND COMMISSIONERS.

Name	Title	Office
Samuel V. Stewart	Governor	President
Miss May Trumper	Supt. Public Instruction.....	Member
C. T. Stewart	Secretary of State	Member
S. C. Ford	Attorney General	Member
Sidney Miller	Register of State Lands.....	Secretary

Clerk of the Board, Mrs. E. B. Thompson.

STATE BOARD OF PARDONS.

Name	Title	Office
S. C. Ford	Attorney General	President
C. T. Stewart	Secretary of State	Secretary
Geo. P. Porter	State Auditor	Member

Clerk of the Board, J. J. Ryan.

STATE BOARD OF PRISON COMMISSIONERS.

Name	Title	Office
Samuel V. Stewart	Governor	President
C. T. Stewart	Secretary of State	Secretary
S. C. Ford	Attorney General	Member

Clerk of the Board, J. J. Ryan.

STATE BOARD OF COMMISSIONERS FOR THE INSANE.

Members.	Title.	Organization
Samuel V. Stewart	Governor	President
C. T. Stewart	Secretary of State	Secretary
S. C. Ford	Attorney General	Member

Clerk of the Board, J. J. Ryan.

CAREY LAND ACT BOARD.

Name	Title	Office
Samuel V. Stewart	Governor	President
C. T. Stewart	Secretary of State	Secretary
S. C. Ford	Attorney General	Member
A. W. Hahon	State Engineer	Sec. Ex-Officio
G. R. Davies		Asst. Secretary

STATE BOARD OF EDUCATION.

Members	Organization	Address	Term Expires
S. V. Stewart.....	President.....	Helena.....	Ex-Officio..... Jan. 1, 1921
S. C. Ford.....	Attorney General.....	Helena.....	Ex-Officio..... Jan. 1, 1921
May Trumper.....	Secretary.....	Helena.....	Ex-Officio..... Jan. 1, 1921
Ward H. Nye.....	Member.....	Billings.....	Feb. 1, 1919
Leo H. Faust.....	Member.....	Libby.....	Feb. 1, 1919
W. S. Hartman.....	Member.....	Bozeman.....	Feb. 1, 1920
Dr. C. E. K. Vidal.....	Member.....	Great Falls.....	Feb. 1, 1920
John Dietrich.....	Member.....	Helena.....	Feb. 1, 1921
A. L. Stone.....	Member.....	Dillon.....	Feb. 1, 1921
Chas. H. Hall.....	Member.....	Missoula.....	Feb. 1, 1922
J. Bruce Kremer.....	Member.....	Butte.....	Feb. 1, 1922

STATE LAW LIBRARY BOARD OF TRUSTEES

Theodore Brantly.....	President.....	Helena.....	Ex-Officio..... Jan. 1, 1921
Wm. L. Holloway.....	Member.....	Helena.....	Ex-Officio..... Jan. 1, 1919
Charles Cooper.....	Member.....	Helena.....	Ex-Officio..... Jan. 1, 1923
C. T. Stewart.....	Secretary.....	Helena.....	Ex-Officio..... Jan. 1, 1921
Geo. P. Porter.....	Member.....	Helena.....	Ex-Officio..... Jan. 1, 1921

Librarian, A. K. Barbour.

STATE BOARD OF TEXT BOOK COMMISSIONERS.

Name	Address	Appointed	Term Expires
L. R. Foote.....	Dillon.....	Apr. 7, 1915.....	Mar. 7, 1920
R. J. Cunningham.....	Bozeman.....	July 2, 1917.....	Mar. 7, 1922
F. P. Baird.....	Roundup.....	Oct. 26, 1917.....	Mar. 7, 1920
C. V. Fulton.....	Butte.....	July 2, 1917.....	Mar. 7, 1922
W. K. Dwyer.....	Anaconda.....	July 2, 1917.....	Mar. 7, 1922
John Dietrich.....	Helena.....	July 2, 1919.....	Mar. 7, 1922
Elga M. Shearer.....	Butte.....	Oct. 9, 1918.....	Mar. 7, 1920

BOARD OF TRUSTEES OF THE STATE HISTORICAL SOCIETY.

Name	Address	Term Expires
Harfield Conrad.....	Helena.....	Jan. 25, 1917
Lee M. Ford.....	Great Falls.....	Jan. 25, 1917
Frank F. Steele.....	Helena.....	Jan. 25, 1917
Fred Wilson.....	Bozeman.....	Jan. 25, 1917
C. B. Power.....	Helena.....	Jan. 25, 1917

Librarian, W. Y. Pemberton; Assistant Librarians, Mary S. McCoy and Charlotte Schneider.

STATE BOARD OF PHARMACY.

Name	Address	Appointed	Term Expires
Emil Starz.....	Helena.....	Mar. 23, 1915.....	July 1, 1918
Chas. J. Chapple.....	Billings.....	March. 17, 1917.....	July 1, 1919
W. R. Montgomery.....	Butte.....	Feb. 13, 1918.....	July 1, 1920

STATE BOARD OF MEDICAL EXAMINERS.

Name	Address	Term Expires
Francis J. Adams.....	Great Falls.....	Feb. 10, 1919
S. A. Cooney.....	Helena.....	Jan. 1, 1920
Leroy Southmayd.....	Great Falls.....	Jan. 1, 1921
W. W. Andrus.....	Miles City.....	Mar. 27, 1922
P. H. McCarthy.....	Butte.....	Sept. 26, 1923
H. H. Judd.....	Bozeman.....	Mar. 2, 1924
W. P. Mills.....	Missoula.....	Feb. 10, 1925

STATE BOARD OF OSTEOPATHIC EXAMINERS.

Name	Address	Appointed	Term Expires
*Asa Willard.....	Missoula.....	Sept. 8, 1915.	May 13, 1919
Chas. W. Mahaffay.....	Helena.....	Jan. 25, 1916.	Mar. 27, 1920
W. C. Dawes.....	Bozeman.....	Mar. 17, 1917.	Feb. 10, 1921

*Secretary.

STATE BOARD OF DENTAL EXAMINERS.

Name	Address	Term Expires
R. C. Purdum.....	Bozeman.....	Feb. 10, 1920
G. E. Longway.....	Great Falls.....	Mar. 27, 1921
T. M. Hampton.....	Helena.....	June 23, 1922
*G. A. Chevigny.....	Butte.....	Mar. 2, 1918
Frank Carl.....	Billings.....	Apr. 5, 1919

*Secretary.

STATE BOARD OF HEALTH.

Name	Address	Appointed	Expires
Samuel V. Stewart.....	Helena.....	Member, Ex-Of..	Jan. 1, 1921
S. C. Ford.....	Helena.....	Memoer, Ex-Of..	Jan. 1, 1921
W. J. Butler, Vice. Pres.....	Helena.....	Ex-Officio.....	Mar. 4, 1921
Maria M. Dean.....	Helena.....		Mar. 7, 1919
Edwin F. Magnin.....	Butte.....		Jan. 1, 1917
D. J. Donorue, Pres.....	Glendive.....		Jan. 1, 1917

Secretary, W. F. Cogswell.

STATE BOARD OF EXAMINERS FOR NURSES.

Name	Address	Term Expires
Miss Lydia R. Van Luvanee.....	Helena.....	May 5, 1919
Miss Olive Inch.....	Butte.....	May 5, 1919
Mrs. Maud Lally.....	Butte.....	May 5, 1920
Miss Margaret M. Hughes.....	Helena.....	May 5, 1921
Miss Parmelia Clark.....	Glasgow.....	May 5, 1921

STATE FISH COMMISSION.

Name	Address	Term Expires
J. L. DeHart.....	Helena.....	Mar. 13, 1919
*Nelson Story, Jr.....	Bozeman.....	Mar. 13, 1921
Wm. M. Bickford.....	Missoula.....	Mar. 13, 1919
J. L. Kelly.....	Anaconda.....	Mar. 13, 1921
M. D. Baldwin.....	Kalispell.....	Mar. 13, 1921

*Secretary.

H. D. Dean, Director State Fish Hatchery, Anaconda.

LIVESTOCK SANITARY BOARD.

Name	Organization	Address
J. H. Burke.....	Chairman.....	Hogan
Dan J. Donohue.....	Vice Chairman.....	Butte
W. J. Butler.....	Secretary.....	Helena

STATE BOARD OF POULTRY HUSBANDRY.

Members	Address	Term Expires
John Rees.....	Anaconda.....	May 2, 1918
Wm. F. Schoppe.....	Bozeman.....	May 2, 1919
J. D. Veach.....	Hubbard.....	May 2, 1920

STATE BOARD OF HORTICULTURE.

Members	Address	Term Expires
Samuel V. Stewart	Helena	Ex-Officio
Allen Pierse	Great Falls	Mar. 10, 1918
O. M. Gerer	Hamilton	Mar. 10, 1918
F. C. Pickering	Joliet	Mar. 10, 1919
C. C. Willis	Plains	Mar. 10, 1919
J. C. Wood	Big Fork	Mar. 10, 1919
Fred T. Parker	Missoula	Mar. 10, 1919
T. T. Black	Whitehall	Mar. 10, 1921

Secretary, M. L. Dean, Missoula.

BOARD OF MANAGERS OF THE STATE SOLDIERS' HOME.

Members	Address	Term Expires
Dr. A. T. Munro	Kalispell	Mar. 16, 1919
Charles S. Warren	Butte	April 18, 1919
Martin Maginnle	Helena	April 18, 1921
Al Ingraham	Columbia Falls	April 18, 1921

Department Commander G. A. R.. (Ex-Officio).
Commandant at the Home, G. I. Rieche.

STATE BOARD OF CHARITIES AND REFORM.

Members	Address	Term Expires
Rev. James F. McNamee	Helena	Mar. 2, 1923
Dr. Ben C. Brooke	Helena	Mar. 2, 1921
*Mrs. Robt. A. Ridge	Billings	Mar. 2, 1919

*Secretary.

STATE HIGHWAY COMMISSION.

Members	Address	Term Expires
C. H. Buford	Virginia City	April 1, 1919
Oscar Rohn	Butte	April 1, 1919
Samuel Webb	Columbus	April 1, 1919
Frank Conley	Deer Lodge	April 1, 1920
A. W. Mahon	Glasgow	April 1, 1920
H. R. Wells	Miles City	April 1, 1920
H. A. Templeton	Great Falls	April 1, 1921
T. F. Hagan	Glendive	April 1, 1921
A. V. Gibson	Kalispell	April 1, 1921
D. T. Curran	Missoula	April 1, 1922
C. W. Morrison	Fort Benton	April 1, 1922
E. A. Richardson	Forsyth	April 1, 1922

FORESTRY BOARD.

Name	Office	Term Expires
Sidney Miller	Chairman	April 1, 1921
John P. Van Hook	Secretary	Mar. 1, 1922
Chas. A. Whipple	Member	Aug. 17, 1921

CONTEST BOARD OF STATE LAND OFFICE.

Name	Office	Term Expires
Sidney Miller	Chairman	Mar. 20, 1921
C. A. Whipple	Member	Aug. 16, 1921
A. W. Mahon	Member	Mar. 7, 1919

EXECUTIVE BOARD OF THE STATE ORPHANS' HOME.
TWIN BRIDGES.

Waller Shobe, President.

Name	Residence	Term Expires
Waller Shobe	Twin Bridges	Ex-Officio
Almon J. Wilcomb	Twin Bridges	April 18, 1919
Patrick Carney	Waterloo	April 19, 1921

**EXECUTIVE BOARD OF THE STATE INDUSTRIAL SCHOOL.
MILES CITY.**

A. C. Dorr, President.		
Name	Residence	Term Expires
A. C. Dorr.....	Miles City.....	Ex-Officio
C. W. Butler.....	Miles City.....	April 19, 1919
Elmer Holt.....	Miles City.....	April 19, 1921

STATE LIVESTOCK COMMISSION.

Name	Residence	Term Expires
T. B. Story.....	Bozeman.....	Mar. 1, 1919
Percy Williamson.....	Miles City.....	Mar. 1, 1919
George T. Farrell.....	Ronan.....	Mar. 1, 1921
William H. Donald.....	Melville.....	Mar. 1, 1921
H. B. Mitchell, Vice Pres.....	Great Falls.....	Mar. 1, 1923
John H. Burke, Pres.....	Helena.....	Mar. 1, 1923

D. W. Raymond, Secretary, Helena.

**EXECUTIVE BOARD OF MONTANA STATE COLLEGE.
BOZEMAN.**

James M. Hamilton, President.		
Name	Residence	Term Expires
James M. Hamilton, Ch'r.....	Bozeman.....	Ex-Officio
J. H. Baker.....	Bozeman.....	April 19, 1919
W. S. Davidson.....	Bozeman.....	April 19, 1921

**EXECUTIVE BOARD OF UNIVERSITY OF MONTANA.
MISSOULA.**

E. O. Sisson, President.		
E. O. Sisson, Ch'r'n.....	Missoula.....	Ex-Officio
J. M. Keith.....	Missoula.....	April 19, 1919
J. H. T. Ryman.....	Missoula.....	April 19, 1921

J. D. Dunlop, Secretary.

**EXECUTIVE BOARD OF MONTANA STATE NORMAL SCHOOL.
DILLON.**

Joseph E. Monroe, President.		
Joseph E. Monroe.....	Dillon.....	Ex-Officio
Geo. P. Highes.....	Dillon.....	April 19, 1919
R. W. Boone.....	Dillon.....	April 19, 1921

**EXECUTIVE BOARD OF THE STATE SCHOOL OF MINES.
BUTTE.**

C. H. Bowman, President.		
C. H. Bowman.....	Butte.....	Ex-Officio
Reno H. Sales.....	Butte.....	April 19, 1919
Oscar Rohn.....	Butte.....	April 19, 1921

**EXECUTIVE BOARD OF MONTANA SCHOOL FOR THE DEAF AND BLIND
BOULDER.**

H. J. Menzemer, President.		
H. J. Menzemer, Ch'r'n.....	Boulder.....	Ex-Officio
J. E. Kelly.....	Boulder.....	April 19, 1919
L. Q. Skelton.....	Boulder.....	April 19, 1921

DISTRICT JUDGES.

District	Judge	Chambers	Counties
Fifth	W. A. Clark (D)	Dillon	Beaverhead, Jefferson, Madison
Fifth	Jos. C. Smith (D)	Dillon	Beaverhead, Jefferson, Madison
Thirteenth	A. C. Spencer (D)	Billings	Big Horn, Carbon, Yellowstone
Twelfth	Jno. W. Taffan (R)	Port Benton	Chouteau
Fourteenth	Jno. A. Matthews (D)	Townsend	Broadwater and Meagher
Thirteenth	Chas. A. Taylor (R)	Billings	Big Horn, Carbon, Yellowstone
Eighth	Jere B. Leslie (D)	Great Falls	Cascade, Teton, Toole
Eighth	H. H. Ewing (D)	Great Falls	Cascade, Teton, Toole
Sixteenth	Daniel L. O'Hearn (D)	Miles City	Custer and Prairie
Seventeenth	C. C. Hurley (D)	Glendive	Dawson, Wibaux, Richland
Third	Geo. B. Winston (R)	Anaconda	Deer Lodge, Granite, Powell
Tenth	Roy E. Ayers (D)	Lewistown	Fergus
Eleventh	W. A. Thompson (D)	Kalspell	Lincoln, Flathead
Ninth	Ben B. Law (D)	Bozeman	Gallatin
First	W. H. Poorman (R)	Helena	Lewis and Clark
Fourth	Theo. Fenz (R)	Missoula	Lewis and Clark
Fourth	R. Lee McCulloch (D)	Hamilton	Missoula, Mineral, Sanders, Ravalli
Fourth	Asa J. Duncan (R)	Missoula	Missoula, Mineral, Sanders, Ravalli
Sixth	A. P. Stark (R)	Lewistown	Park, Sweet Grass, Stillwater
Sixth	John Hurly (R)	Glasgow	Valley, Sheridan, Phillips
Second	Edwin Lamb (D)	Butte	Silver Bow
Second	Jno. W. Dwyer (D)	Butte	Silver Bow
Eighteenth	W. B. Rhoades (D)	Havre	Hill and Blaine
Fifteenth	Geo. Jones (D)	Forsyth	Rosebud and Mussashell
Tenth	Jack Briscoe (D)	Lewistown	Fergus
Second	Jere Lynch (D)	Butte	Silver Bow

Terms expire January 3, 1921.

DIRECTORY OF LABOR ORGANIZATIONS.

Frequent requests received from time to time by this Department, for lists of labor organizations in Montana, have suggested the usefulness of publishing such a directory for reference purposes.

It is a matter of regret to the Department that the directory does not embrace every labor organization in the State. Nevertheless, there are but few omissions, and this directory is more complete than any heretofore published in the State.

All information, except the name and number, with the name and address of the secretary, is necessarily omitted, for the reason that it is not in accordance with the policy of labor organizations to furnish detailed reports.

MONTANA FEDERATION OF LABOR.

M. M. Donoghue,	President	Box 31, Butte
Chas. Armstrong	Vice-President	Butte
O. M. Partelow.....	Secretary-Treasurer	Box 31, Butte

EXECUTIVE BOARD.

Lawrence Nelson	Great Falls
H. W. Nelson.....	Billings
H. B. Cain.....	Missoula
James Anderson.....	Helena
Wm. Corcoran.....	Sand Coulee
C. A. Frey.....	Anaconda
Eu Shields.....	Butte
James Snell.....	Butte

TRADES AND LABOR COUNCILS AND ASSEMBLIES.

Name of Organization.	Name and Address of Secretary.
Central Labor Council—L. E. Van Vleck, Box 492, Anaconda.	
Yellowstone County T. & L. Assembly—Edward Drake, Box 132, Billings.	
Trades and Labor Council—H. E. Moore, Bozeman.	
Silver Bow T. & L. Council—D. J. Farrell, Box 1257, Butte.	
Central Labor Union—Edward Jensen, Box 329, Glendive.	
Cascade County T. & L. Assembly—J. Frank Kiernan, Box 560, Gt. Falls.	
Trades and Labor Council—J. N. Burkhardt, Hamilton.	
Central Labor Union—Don McLeod, 920 Second St., Havre.	
Trades and Labor Assembly—James Anderson, Box 483, Helena.	
Central Labor Council—F. A. Kleese, Box 51, Kalispell.	
Trades and Labor Council—E. A. Webster, Box 747, Lewistown.	
Trades and Labor Assembly—C. C. Sheak, Box 128, Livingston.	
Trades and Labor Council—J. J. Condon, Box 534, Miles City.	
Central T. & L. Council, Missoula County—Roy S. Liston, Box 218, Missoula.	
Central Trades and Labor Council—Jens Jensen, W. Main St., Roundup.	

BUILDING TRADES COUNCILS.

Name of Organization.	Name and Address of Secretary.
Anaconda Building Trades Council—O. M. Beck, 406 Locust St., Anaconda.	
Billings Building Trades Council—F. L. Lewis, Box 339, Billings.	
Butte Building Trades Council—A. A. Sundberg, Box 1330, Butte.	
Great Falls Building Trades Council—Chas. Heximer, Box 543, Great Falls.	
Helena Building Trades Council—O. H. Graham, 208 N. Davis St., Helena.	

LOCAL LABOR ORGANIZATIONS IN MONTANA.

INTERNATIONAL ASSOCIATION OF MACHINISTS AND HELPERS.

No. of Organization.	Name and Address of Secretary.
Anaconda Lodge No. 29—J. Shephard, 507 Maple St., Anaconda.	
Butte Lodge No. 88—J. E. McGill, 821 W. Mercury St., Butte.	
Butte Lodge No. 889 (Helpers)—D. F. Harrington, 406 W. Granite St., Butte.	
Deer Lodge No. 100—E. Peterson, Box 801, Deer Lodge.	
Deer Lodge No. 925 (Helpers)—G. H. Penderson, Box 801, Deer Lodge.	
Glendive Lodge No. 593—E. Jensen, Box 329, Glendive.	
Great Falls Lodge No. 287—J. R. Sherwood, Box 767, Great Falls.	
Great Falls Lodge No. 869 (Helpers)—Chas. Scanda, 811-8th Ave. S. Gt. Falls.	
Havre Lodge No. 499—A. D. Chisholm, 748 First St., Havre.	
Helena Lodge No. 716—F. A. Fabian, 1015-5th Ave., Helena.	
Helena Lodge No. 231—J. H. Weber, 1508 Phoenix Ave., Helena.	
Harlowton Lodge No. 848—H. L. George, Box 505, Harlowton.	
Livingston Lodge No. 168—R. H. Bragg, Box 222, Livingston.	
Miles City Lodge No. 507—M. V. Moore, 610 N. Lake St., Miles City.	
Miles City Lodge No. 888 (Helpers)—A. L. Kile, Box 764, Miles City.	
Whitefish Lodge No. 404—C. L. Waters, Box 124, Whitefish.	

BROTHERHOOD OF BOILER MAKERS AND IRON SHIP BUILDERS OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local No. 80—Nicholas J. Koopela, 612 Walnut St., Anaconda.	
Local No. 528—Wm. Elbersen, Box 877, Deer Lodge.	
Local No. 602—Chas. Linding, 723-2nd Ave. SW., Great Falls.	
Local No. 591—V. B. O'Connor, 317 Valentine St., Glendive.	
Local No. 41—Anton Trudnoski, Box 435, Harlowton.	
Local No. 111—A. H. Shanks, 1126 Vine St., Missoula.	
Local No. 130—W. H. Goodland, Jr., 1819 Whiteman St., Butte.	
Local No. 123—Theo. W. Everett, Box 554, Livingston.	
Local No. 367—J. C. Armstrong, Havre.	
Local No. 520—Omar Maxfield, 613 N. Center St., Miles City.	
Local No. 535—E. C. Henson, Box 487, Whitefish.	

AMALGAMATED SHEET METAL WORKERS INTERNATIONAL ALLIANCE

No. of Organization.	Name and Address of Secretary.
Local Union No. 145—Leo J. Kent, 606 Pine St., Anaconda.	
Local Union No. 181—Fred Buffington, Billings.	
Local Union No. 103—Albert Cook, Box 196, Butte.	
Local Union No. 395—Geo. Bradshaw, Box 223, Deer Lodge.	
Local Union No. 446—Leonard Mentrumb, Box 1311, Great Falls.	
Local Union No. 419—C. J. Whitman, 811 W. Mont. Ave., Miles City.	
Local Union No. 489—Great Falls.	
Local Union No. 497—Wm. Boldus, 635-10th St., Havre.	
Local Union No. 414—Chas. Kuzl, Lewistown.	
Local Union No. 325—Wm. Ould, 211 S. F. St., Livingston.	
Local Union No. 271—Geo. T. Morris, 910 S. 6th St. W., Missoula.	

INTERNATIONAL BROTHERHOOD OF BLACKSMITHS AND HELPERS.

No. of Organization.	Name and Address of Secretary.
Local No. 237—Jas. E. Monahan, Box 295, Anaconda.	
Local No. 456—Ed. A. Davis, 1901 Roberts Ave., Butte.	
Local No. 6—W. R. Pugh, Box 901, Deer Lodge.	
Local No. 233—J. S. Kusek, Box 1263, Great Falls.	
Local No. 492—Edgar Sutherland, 1000-2nd St., Havre.	
Local No. 277—L. L. Lang, 118 S. F. Street., Livingston.	
Local No. 7—John Gray, 807 N. Custer, Miles City.	

INTERNATIONAL UNION OF STEAM & OPERATING ENGINEERS.

No. of Organization.	Name and Address of Secretary.
Local Union No. 116—	A. L. Hedinger, Box 732, Helena.
Local Union No. 374—	W. S. Danforth, 744 S. 3rd. St., Missoula.
Local Union No. 381—	J. R. Lawson, 206 S. 32nd St., Billings.
Local Union No. 461—	Bozeman.
Local Union No. 547—	Wm. Zorze, Box 903, Great Falls.
Local Union No. 575—	Wm. Langenbacher, 813 Woodbury St., Miles City.
Local Union No. 587—	P. M. Smith, 714 W. Park Ave., Anaconda.

BAKERY AND CONFECTIONERY WORKERS INTERNATIONAL UNION OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local No. 79—	Chas. Richstin, 822 27th St., Billings.
Local No. 91—	Fred Stiegler, 802-6th Ave. S., Great Falls.
Local No. 93—	Erick Herchner, 723 Maryland, Butte.
Local No. 274—	V. Kermen, Box 565, Anaconda.
Local No. 154—	H. H. Harter, 618 Plymouth St., Missoula.

INTERNATIONAL TYPOGRAPHICAL UNION.

No. of Organization.	Name and Address of Secretary.
Local Union No. 255—	C. B. Shryock, Box 546, Anaconda.
Local Union No. 398—	W. W. Stephenson, 312 N. 25th St., Billings.
Local Union No. 656—	L. L. Thompson, Box 665, Bozeman.
Local Union No. 126—	Frank J. Glenn, Box 585, Butte.
Local Union No. 256—	D. G. Bowersox, 11-17th St. S., Great Falls.
Local Union No. 764—	H. A. Miller, Box 1601, Havre.
Local Union No. 95—	George Major, Box 1316, Helena.
Local Union No. 723—	F. J. Wheeler, Box 164, Kalispell.
Local Union No. 550—	Earl F. McGinnis, Box 723, Lewistown.
Local Union No. 489—	Ross E. Shaver, 423 S. F. St., Livingston.
Local Union No. 631—	G. Fred Aultmann, Box 592, Miles City.
Local Union No. 277—	Carl T. Seely, Box 1286, Missoula.
Local Union No. 795—	William R. Fauss, Box 34, Roundup.
Local Union No. 273—	J. H. Lindquist, Drawer H., Red Lodge.

JOURNEYMEN BARBERS' INTERNATIONAL UNION OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 294—	Ray Rorsan, 316 W. Main St., Lewistown.
Local Union No. 401—	H. H. Conley, 326 S. 7th St., Livingston.
Local Union No. 454—	Fred Hinman, 28 W. Main St., Bozeman.
Local Union No. 459—	A. G. VanSegle, 210 S. 30th St., Billings.
Local Union No. 472—	W. M. Smith, Oxford Barber Shop, Havre.
Local Union No. 498—	Elmer Bonathan, 19 Main St., Roundup.
Local Union No. 575—	L. E. VanVleck, 118 E. Park Ave., Anaconda.
Local Union No. 578—	S. M. Russel, 108 S. Main St., Helena.
Local Union No. 581—	E. C. Longnecker, 421 5th Ave. S., Gt. Falls.
Local Union No. 585—	C. E. Pedicord, 101 E. Main St., Missoula.
Local Union No. 615—	W. B. Mann, Box 111, Miles City.
Local Union No. 635—	J. R. Costello, 348 E. Broadway, Butte.
Local Union No. 638—	W. W. Eastridge, 112 E. Main St., Hamilton.

INTERNATIONAL UNION OF MINE, MILL AND SMELTER WORKERS.

Name and No. of Organization	Name and Address of Secretary.
Butte Miners Union No. 1—	Earl G. Huntley, Box 1127, Butte.
Granite Miners Union No. 4—	E. L. Perey, Box 55, Phillipsburg.
Great Falls Mill & Smelter Union No. 16—	Herbert E. Gallaher, Box 1720, Gt. Falls.
Garnet Miners Union No. 82—	Nels Seadin, Garnet.
Butte Stationary Engineers Union No. 83—	John Gilbert, Box 229, Butte.
North Moccasin Miners Union No. 111—	Walter Munkers, Box 68, Kendall.
Helena Miners Union No. 114—	Ed. Langley, Box 1102, Helena.
Anaconda Mill & Smelter No. 117—	Jas. O'Donnell, Box 473, Anaconda.
Zortman Miners Union No. 190—	Norman Bosler, Box 80, Whitcomb.

UNITED BROTHERHOOD OF CARPENTERS & JOINERS OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 88—	Thos. Speiran, 714 Oak St., Anaconda.
Local Union No. 1361—	J. W. Curtis, Box 581, Baker.
Local Union No. 1172—	Otto Nichols, 215 S. 30th St., Billings.
Local Union No. 557—	H. B. Clack, 301 N. 3rd St., Bozeman.
Local Union No. 112—	H. E. Fisher, Box 623, Butte.
Local Union No. 1229—	R. Rail, Box 359, Deer Lodge.
Local Union No. 175—	W. C. Long, Dillon, Mont.
Local Union No. 1409—	A. P. Anderson, Box 611, Forsyth.
Local Union No. 1623—	Detlof Wiecks, Glasgow, Mont.
Local Union No. 286—	J. J. Schwerdt, 313 8th Ave. S., Great Falls.
Local Union No. 1536—	J. R. Nalley, Hamilton, Mont.
Local Union No. 309—	O. L. Nunn, Hardin, Mont.
Local Union No. 718—	I. J. Johnson, 722 5th Ave., Havre.
Local Union No. 153—	F. O. Connell, 1036 5th Ave., Helena.
Local Union No. 911—	A. E. Mercer, 502 3rd Ave., Kalispell.
Local Union No. 1949—	Hy West, Box 906, Lewistown.
Local Union No. 1300—	J. F. Chaisson, Box 44, Lehigh.
Local Union No. 1085—	L. R. Williamson, 109 N. E St., Livingston.
Local Union No. 1524—	T. E. Rankin, 7th and Fort St., Miles City.
Local Union No. 28—	L. D. Ambrose, 433 McLeod Ave., Missoula.
Local Union No. 744—	Jas. J. Hart, Box 523, Red Lodge.
Local Union No. 1783—	John Hingerweld, 218 6th Ave. W., Roundup.
Local Union No. 1617—	Harry Shuster, Roy, Mont.
Local Union No. 1759—	Geo. Carmen, Box 204, Whitehall.
Local Union No. 1998—	Otto F. Just, Wolf Point, Mont.

UNITED ASSOCIATION OF PLUMBERS AND STEAMFITTERS OF UNITED STATES AND CANADA.

No. and Name of Organization.	Name and Address of Secretary.
Local No. 672 (Gen. Pipe Fitters and Helpers)—	A. Powdrill, 1015 E. 4th St., Anaconda.
Local No. 673 (P. G. & S. F.)—	E. E. Whittaker, Box 1377, Anaconda.
Local No. 30 (P. & S. F.)—	Lewis Salisbury, 109 S. 39th St., Billings.
Local No. 160 (P. & S. F.)—	A. E. Dawes, 321 S. K St., Livingston.
Local No. 41 (P. & S. F.)—	F. C. Diedrich, Box 740, Butte.
Local No. 710 (G. P. F. & H.)—	Joe Guelfi, 2114 Oak St., Box 1277, Butte.
Local No. 745 (P. & S. F.)—	R. O. Thomson, Box 642, Glendive.
Local No. 139 (P. & S. F.)—	H. H. Klessig, 714 6th Ave. S., Gt. Falls.
Local No. 712 (G. P. F. & H.)—	M. Blasius, 7th St. & 10th Ave. S., Gt. Falls.
Local No. 656 (P. G., S. F. & H.)—	W. E. Black, 915 2nd Ave., Havre.
Local No. 206 (P. & S. F.)—	Geo. Stocking, 413½ N. Beatrice St., Helena.
Local No. 439 (P., G., S. F. & H.)—	F. G. Johnston, Box 153, Lewistown.
Local No. 654 (P., G., S. F. & H.)—	Robt. M. Robinson, Box 602, Miles City.

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS AND OPERATORS OF NORTH AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 65—	C. S. Littlefield, Box 846, Butte.
Local Union No. 122—	M. A. Murphy, Box 385, Great Falls.
Local Union No. 185—	S. D. Beckwirth, Box 267, Helena.
Local Union No. 200—	G. C. Powell, Box 483, Anaconda.
Local Union No. 341—	Geo. M. Henry, 208 S. C St., Livingston.
Local Union No. 408—	T. M. Skinner, Missoula, Mont.
Local Union No. 416—	H. Dale Kline, Box 515, Bozeman.
Local Union No. 453—	Harry Bolster, 421 S. 30th St., Billings.
Local Union No. 532—	R. Shay, Box 646, Billings.
Local Union No. 552—	H. R. Matthews, Box 653, Lewistown.
Local Union No. 623—	Curtis Holland, 2123 Princeton St., Butte.
Local Union No. 653—	C. M. Dahlgreen, Arnold Blk., Miles City.

Telephone Operators.

Local Union No. 9-A—	Bertha McGregor, 915 W. Gold St., Butte.
Local Union No. 38-A—	Lucy Goodman, 301 S. 1st W., Missoula.
Local Union No. 45-A—	Telephone Operators, Miles City.

GRANITE CUTTERS' INTERNATIONAL ASSOCIATION OF AMERICA

Name and Address of Secretary.

Butte District—B. J. Ahles, 921 Nevada St., Butte.

Helena District—Wm. McHatter, Rimini Route, Helena.

JOURNEYMEN STONE CUTTERS' ASSOCIATION OF NORTH AMERICA.

Name and Address of Secretary.

Billings Local—Geo. Taylor, 216 N. 26th St., Billings.

Great Falls Local—W. B. Oliver, Box 1672, Great Falls.

OPERATIVE PLASTERERS' & CEMENT FINISHERS' INTERNATIONAL ASSOCIATION OF THE UNITED STATES AND CANADA.

No. of Organization.

Name and Address of Secretary.

Local No. 86—J. B. Lombard, 45 Cuttler St., Helena.

Local No. 110—Harry Thompson, Box 847, Great Falls.

Local No. 119—Robert Brasier, Box 718, Butte.

Local No. 147—Dan Lyons, 424 Cedar St., Anaconda.

Local No. 352—R. N. Bennett, 211 N. 23rd St., Billings.

Local No. 415—W. L. Hogue, Box 754, Missoula.

BRICKLAYERS, MASONS AND PLASTERERS' INTERNATIONAL UNION OF AMERICA.

No. of Organization.

Name and Address of Secretary.

Local No. 1—G. G. Deavears, Box 960, Butte.

Local No. 2—Chas. Dolan, Box 505, Anaconda.

Local No. 3—E. B. Tanner, Box 534, Great Falls.

Local No. 4—Michael Corbet, Gen. Del., Helena.

Local No. 5—Fred Schwan, 516 W. College St., Bozeman.

Local No. 6—C. Raymond, Box 266, Helena.

Local No. 7—Ed. Christian, Jr., Box 965, Missoula.

Local No. 8—J. D. Eaton, Kalispell.

Local No. 9—D. L. Marshall, 620 Farewell St., Lewistown.

Local No. 10—Frank Evans, Box 556, Billings.

Local No. 11—Clarence Duggan, Box 132, Miles City.

Local No. 12—Sam Thorpe, Box 1307, Havre.

PATTERN MAKERS LEAGUE OF NORTH AMERICA.

Name and Address of Secretary.

Anaconda Association—Thos. Fitzgerald, 518 E. Com'l St., Anaconda.

INTERNATIONAL BROTHERHOOD OF STATIONERY FIREMEN.

No. of Organization.

Name and Address of Secretary.

Local Union No. 362—A. R. Siloway, Box 663, Great Falls.

INTERNATIONAL ASSOCIATION OF BRIDGE, STRUCTURAL AND ORNAMENTAL IRON WORKERS.

No. of Organization.

Name and Address of Secretary.

Local Union No. 81—H. Bothwell, 102 N. Oak St., Anaconda.

Local Union No. 108—R. J. Murphy, 312 W. Quartz St., Butte.

Local Union No. 150—Jas. O'Keefe, Box 1613, Great Falls.

INTERNATIONAL BROTHERHOOD OF FOUNDRY EMPLOYEES.

No. of Organization.

Name and Address of Secretary.

Local Union No. 10—J. W. Wynn, 1518 6th Ave. N., Great Falls.

INTERNATIONAL UNION OF UNITED LEATHER WORKERS.

No. of Organization.	Name and Address of Secretary.
Local Union No. 56—A. L. Hallsig,	512 Washington St., Miles City.

INTERNATIONAL MOLDERS' UNION OF NORTH AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 93—James C. Crowe,	924 5th Ave. N., Great Falls.
Local Union No. 276—Thomas Tracy,	1603 Phillips Ave., Butte.
Local Union No. 309—James B. McCavitt,	Box 671, Anaconda.

WOOD, WIRE & METAL LATHERS INTERNATIONAL UNION.

No. of Organization.	Name and Address of Secretary.
Local Union No. 69—H. J. Skelly,	9 N. Washington St., Butte.
Local Union No. 212—Walter J. Addleman,	527½ Alder St., Missoula.
Local Union No. 305—Thomas L. Fagan,	722 3rd Ave. N., Great Falls.
Local Union No. 258—Louis A. Rose,	105 S. 32nd St., Billings.
Local Union No. 361—L. A. Reed,	Box 1561, Lewistown.
Local Union No. 408—Fremont Mathena,	415 Pacific Ave., Miles City.

INTERNATIONAL HOD CARRIERS' BUILDING & COMMON LABORERS' UNION OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 98—C. E. Zylema,	246 Adlerson Ave., Billings.
Local Union No. 147—E. A. Morgan,	313 Pine St., Lewistown.
Local Union No. 150—Geo. Baker,	Box 965, Butte.
Local Union No. 187—E. C. Lathrop,	Box 1278, Missoula.
Local Union No. 235—Chris Thompson,	Box 442, Anaconda.
Local Union No. 254—Fred Shopfer,	Box 268, Helena.
Local Union No. 278—E. B. Rogers,	704 3rd Ave. S., Great Falls.
Local Union No. 349—F. Gammeigard,	Box 181, Miles City.
Local Union No. 384—Thos. Wennewold,	Havre.
Local Union No. 410—Walter D. Schwitering,	208 S. Church Ave., Bozeman.

BROTHERHOOD OF PAINTERS, DECORATORS & PAPERHANGERS OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local No. 182—Jack Howerton,	901 W. 3rd St., Anaconda.
Local No. 167—Bryson P. Blair,	Box 507, Billings.
Local No. 720—E. R. Torry,	739 S. Main St., Butte.
Local No. 925—R. W. Carroll,	Box 355, Deer Lodge.
Local No. 260—H. H. Williams,	816 E. 7th Ave.S., Great Falls.
Local No. 940—Cliff Malyon,	Havre, Mont.
Local No. 1023—O. H. Graham,	Box 272, Helena.
Local No. 1078—C. A. Estell,	Box 448, Lewistown.
Local No. 351—Adolph Petery,	422 N. Main St., Livingston.
Local No. 851—Arthur Sticht,	Box 464, Missoula.
Local No. 982—F. Smith,	1207 Roosevelt Ave., Miles City.
Local No. 1071—Geo. J. Dittman,	226 Dakota St., Dillon.
Local No. 951—Byron Simington,	Red Lodge.
Local No. 384—John H. Dissmore,	R-3, Kalispell.

CIGAR MAKERS' INTERNATIONAL UNION OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local No. 312—C. C. Sheak,	Box 128, Livingston.
Local No. 362—Geo. Piechovick,	504 3rd Ave. S., Gt. Falls.
Local No. 375—Carl G. Miller,	221 E. Com'l Ave., Anaconda.
Local No. 445—A. E. Bronstad,	Box 110, Billings.

NATIONAL FEDERATION OF POSTAL EMPLOYEES.

No. of Organization.	Name and Address of Secretary.
Local No. 132—	Roy Krom, Billings, Mont.
Local No. 82—	Joseph Dolan, Butte, Mont.
Local No. 208—	A. V. Lawrenson, Great Falls, Mont.
Local No. 119—	A. E. Benson, Miles City, Mont.
Local No. 113—	E. L. Alward, Missoula, Mont.

AMERICAN FEDERATION OF MUSICIANS.

No. of Organization.	Name and Address of Secretary.
Local No. 81—	J. P. Braus, 615 Pine St., Anaconda.
Local No. 233—	Henry Houle, Room 10 Union Bldg., Helena.
Local No. 241—	W. E. Vincent, 116 Hamilton St., Butte.
Local No. 242—	W. H. Watson, Havre, Mont.
Local No. 358—	B. J. Agnew, Livingston.
Local No. 365—	Isadore Sturrock, 1018 4th Ave. S., Gt. Falls.
Local No. 397—	H. F. Donart, Box 689, Billings.
Local No. 429—	W. E. Means, Box 597, Miles City.
Local No. 498—	Herbert Resner, Missoula.
Local No. 519—	E. R. Race, Lewistown.
Local No. 552—	Chas. H. Swaney, Kalispell.
Local No. 555—	Milton C. Bergman, Deer Lodge.
Local No. 637—	F. W. Carolan, Forsyth.
Local No. 695—	Geo. V. Karrer, Harlowton.
Local No. 709—	Harold S. Morey, Bozeman.

NATIONAL ASSOCIATION OF LETTER CARRIERS.

No. of Organization.	Name and Address of Secretary.
Branch No. 220—	W. R. Burroughs, Helena.
Branch No. 621—	Wm. J. Lavell, Butte.
Branch No. 650—	Geo. H. Bruce, Great Falls.
Branch No. 701—	W. C. Bell, Missoula.
Branch No. 948—	Carl A. Kraft, Kalispell.
Branch No. 958—	C. E. Kirby, Livingston.
Branch No. 1028—	G. H. Demcrast, Bozeman.
Branch No. 1425—	Albert C. Hink, Havre.
Branch No. 1680—	D. L. Ash, Hamilton.
Branch No. 1698—	Murl J. Sesson, Glasgow.
Branch No. 1778—	J. F. Wyatt, Dillon.

INTERNATIONAL BROTHERHOOD OF BOOKBINDERS.

No. of Organization.	Name and Address of Secretary.
Local Union No. 101—	Robt. T. Ogden, 1959 Roberts St., Butte.

HOTEL AND RESTAURANT EMPLOYEES' INTERNATIONAL ALLIANCE
AND BARTENDERS' INTERNATIONAL LEAGUE OF AMERICA.

Name of Organization.	Name and Address of Secretary.
Local No. 101—	C. L. Burris, Box 167, Great Falls.
Local No. 302—	John H. Rooney, Box 760, Butte.
Local No. 321—	Al G. Gray, Box 665, Havre.
Local No. 334—	Frank Root, Box 834, Roundup.
Local No. 396—	L. E. VanVleck, 118 E. Park Ave., Anaconda.
Local No. 427—	H. S. Burston, 624 E. Cedar St., Missoula.
Local No. 432—	H. M. Shaw, 604 Main St., Miles City.
Local No. 457—	Lena Mattausch, 825 E. Park, Butte.
Local No. 498—	J. H. Hopkins, Box 425, Lewistown.
Local No. 524—	Charles Appenzeller, care of Cozy Cafe, Miles City, Mont.
Local No. 533—	B. W. Glendinning, care California Wine House, Helena.
Local No. 609—	Dan P. Shields, 13½-4th St. N., Great Falls.
Local No. 612—	Dan Finnegan, Box 946, Helena.
Local No. 664—	George M. Jones, Box 462, Glendive.
Local No. 746—	Joseph Pfister, Box 735, Anaconda.
Local No. 806—	Charles B. Parker, Box 344, Deer Lodge.
Local No. 809—	H. B. Brillhart, 210½ Main St., Lewistown.
Local No. 817—	W. J. Kelly, Box 22, Missoula, Mont.
Local No. 859—	Frank J. Holtman, 312 S. Broadway, Billings.
Local No. 855—	Chas. A. Thompson, Box 292, Livingston.
Local No. 861—	J. H. Danlils, Box 769, Billings.

BROTHERHOOD OF RAILWAY CLERKS, FREIGHT HANDLERS AND STATION EMPLOYEES.

No. of Organization.	Name and Address of Secretary.
Local Union No. 43—	Jas A. Brown, 518 Defoe St., Missoula.
Local Union No. 305—	R. W. Whitman, Box 514, Miles City.
Local Union No. 386—	R. L. Lee, Glendive, Mont.
Local Union No. 401—	Mrs. Olap Chadwick, 617 N. 29th St., Billings.
Local Union No. 402—	Edgar R. Nelson, Livingston.
Local Union No. 454—	H. L. Slack, 1117 Cobbon St., Butte.
Local Union No. 461—	M. J. McGinley, N. P. Section House, Helena.
Local Union No. 498—	Mrs. Catherine Brown, 825 W. Main St., Lewistown.
Local Union No. 500—	J. H. Ruerup, Harlowton.
Local Union No. 516—	John Goyer, Laurel, Mont.
Local Union No. 528—	O. D. Bailey, 921½-1st Ave. N., Great Falls.
Local Union No. 537—	Harry C. Ellis, Box 905, Deer Lodge.
Local Union No. 656—	Marie M. Lamey, 515 3rd Ave., Havre.
Local Union No. 664—	Margaret Domick, Wolf Point.

RETAIL CLERKS INTERNATIONAL PROTECTIVE ASSOCIATION.

No. and Name of Organization.	Name and Address of Secretary.
Anaconda Local No. 1041—	F. E. Castle, Box 441, Anaconda.
Butte Local No. 4—	E. C. Shields, Box 782, Butte.
Great Falls Local No. 57—	Leo C. Reisz, Box 236, Great Falls.
Livingston Local No. 1091—	Allen H. Shogren, 426 S. F. St., Livingston.
Roundup Local No. 1214—	R. J. McHale, Box 324, Roundup.

INTERNATIONAL BROTHERHOOD OF TEAMSTERS, CHAUFFEURS, STABLEMEN AND HELPERS OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 113—	D. W. Thomas, 108 Cedar St., Anaconda.
Local Union No. 355—	D. B. Purtle, 2115-3rd Ave. S., Billings.
Local Union No. 2—	Thos. Johns, 1502 E. 2nd St., Butte.
Local Union No. 4—	D. J. Farrell, Box 1114, Butte.
Local Union No. 173—	E. L. Greek, 523-4th Ave. S., Great Falls.
Local Union No. 246—	Theo. Voight, 510 8th Ave. S., Great Falls.
Local Union No. 298—	William Griffin, 1121-5th Ave. S., Great Falls.
Local Union No. 595—	Havre.
Local Union No. 101—	T. P. Milligan, 920-6th Ave., Helena.
Local Union No. 531—	W. C. Kenenz, 612 Toole Ave., Missoula.

INTERNATIONAL JEWELRY WORKERS' UNION.

No. of Organization.	Name and Address of Secretary.
Local No. 26—	Carl E. Stetters, 1419½-3rd. Ave. N., Great Falls.

LAUNDRY WORKERS' INTERNATIONAL UNION.

No. of Organization.	Name and Address of Secretary.
Local No. 11—	Jessie Schuster, Gen. Del., Deer Lodge.
Local No. 14—	Jennie Mart, Gen. Del., Miles City.
Local No. 15—	Myrtle Butler, Box 503, Anaconda.
Local No. 19—	F. A. Tompkins, 512-5th Ave. S., Great Falls.
Local No. 21—	Alice E. Kling, 1427 Sherwood St., Missoula.
Local No. 25—	Beatrice Gregory, Box 962, Butte.
Local No. 45—	A. Guy Bussard, 532 N. Park St., Helena.
Local No. 97—	Walter C. Jacobsen, Box 194, Livingston.

INTERNATIONAL STEREOTYPERS' AND ELECTROTYPERS' UNION.

No. of Organization.	Name and Address of Secretary.
Local Union No. 60—	Edward Huffer, 120½ Oklahoma Ave., Butte.

INTERNATIONAL ALLIANCE OF THEATRICAL STAGE EMPLOYEES AND MOVING PICTURE MACHINE OPERATORS OF THE UNITED STATES AND CANADA.

No. of Organization.	Name and Address of Secretary.
Local No. 418—	Frank Smager, Box 155, Anaconda.
Local No. 240—	Leo Heffner, Box 545, Billings.
Local No. 94—	Henry Young, Box 737, Butte.
Local No. 213—	L. W. Dunbar, Box 1581, Great Falls.
Local No. 431—	G. W. Evoy, Box 1712, Lewistown.
Local No. 692—	Louis Jacky, Box 692, Missoula.

SWITCHMEN'S UNION OF NORTH AMERICA.

No. and Name of Organization.	Name and Address of Secretary.
Copper City Lodge No. 48—	P. O'Shea, 837 S. Main St., Butte.
Miles City Lodge No. 53—	F. J. McKeever, 805 N. Mont. St., Miles City.
Great Falls Lodge No. 81—	E. M. Fitzgerald, 414½-5th Ave. N., Great Falls.
Helena Lodge No. 148—	S. L. Vimpany, Columbia and Elm Sts., Helena.
Cut Bank Lodge No. 207—	M. M. Madison, Cut Bank.

JOURNEYMEN TAILORS UNION OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 25—	H. Robertson, Box 239, Butte.
Local Union No. 43—	George Harvey, 2214-6th Ave. N., Great Falls.
Local Union No. 146—	A. R. Mathenson, Havre.
Local Union No. 151—	J. A. Ringler, 519 E. 3rd St., Anaconda.
Local Union No. 265—	Chas. B. Herbig, 530 State St., Helena.

AMALGAMATED ASSOCIATION OF STREET AND ELECTRIC RAILWAY EMPLOYEES OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Division No. 381—	Benj. Ivey, 2136 Ottawa St., Butte.
Division No. 495—	H. E. Washburn, 903 Wilder Ave., Helena.
Division No. 545—	G. V. Richards, 1640 S. 10th St. W., Missoula.
Division No. 664—	A. P. Duncan, 717-7th Av. N., Great Falls.

INTERNATIONAL PRINTING PRESSMEN AND ASSISTANTS' UNIONS OF NORTH AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 21—	A. P. Hildebrand, 918 Iowa Ave., Butte
Local Union No. 227—	Wm. Winter, Box 533, Billings.
Local Union No. 93—	Edmund Garrison, Box 1441, Great Falls.
Local Union No. 9—	Richard L. Fisher, Box 924, Helena.
Local Union No. 242—	P. B. Thornton, 904 Monroe St., Missoula.

THE ORDER OF RAILWAY TELEGRAPHERS.

No. of Organization.	Name and Address of Secretary.
Division No. 54—	(Covers entire system N. P. Railway)—B. E. Nason, North Branch, Minn.
Division No. 70—	(Covers entire system G. N. Railway)—A. O. Olson, Box 328, Breckenridge, Minn.
Division No. 23—	(Covers entire system C. M. & St. Paul Ry.)—Ed. R. Derickson, Room 310, Drexel Bldg., Chicago, Ill.
Division No. 130—	(Covers entire system Chicago, Burlington and Quincy System)—J. H. Rogers, 1505 Market St., La Crosse, Wis.
Division No. 172—	(Covers Oregon Short Line Railway)—S. B. Summers, Roy, Utah.

Organizations consist of system division which includes all members located on a line of railroad running through several state.

RAILWAY MAIL ASSOCIATION.

Name of Organization.	Name and Address of Secretary.
Butte Branch—C. G. Gervaglia,	1530 Phillips Ave., Butte.
Billings Branch—Winford Griffing,	R. F. D, No. 3. Billings.
Montana Branch—A. H. Davis,	care Ry. Mail Service, Helena.

AMALGAMATED MEAT CUTTERS AND BUTCHER WORKMEN OF NORTH AMERICA.

No. of Organization.	Name and Address of Secretary.
Local No. 479—Frank B. Klick,	714-3rd Ave. N., Great Falls.
Local No. 654—O. P. Williams,	716 N. 24th St., Billings.

INTERNATIONAL UNION OF THE UNITED BREWERY WORKMEN OF AMERICA.

No. of Organization.	Name and Address of Secretary.
Local Union No. 152—A. A. Stall,	Box 117, Anaconda.
Local Union No. 200—Frank Kohl,	Box 435, Great Falls.
Local Union No. 104—Chas. Prater,	Box 1258, Butte.
Local Union No. 104 (Branch No. 1)—	H. A. Anderson, 540 Peosta Ave., Helena.
No. 104 (Branch No. 2)—	Otto Graf, Box 199, Wallace, Idaho.
No. 104 (Branch No. 3)—	John Hodson, Box 647, Missoula, Mont.
No. 104 (Branch No. 4)—	John Kenny, Box 433, Kalispell.
No. 104 (Branch No. 5)—	Putney Grimes, Box 831, Billings.
No. 104 (Branch No. 6)—	John Liener, Box 1882, Lewistown.
No. 104 (Branch No. 7)—	Wm. Friday, Box 604, Manhattan.
No. 104 (Branch No. 8)—	Carl Freund, Box 194, red Lodge.
No. 104 (Branch No. 9)—	F. Scherer, 318 E. Peach St., Bozeman.

BROTHERHOOD OF RAILWAY CARMEN OF AMERICA.

No. and Name of Organization.	Name and Address of Secretary.
Paradise Valley Lodge No. 113—	W. J. Clark, Paradise, Mont.
Billings Lodge No. 165—	Ray Dabner, Billings.
Laurel Lodge No. 195—	W. B. Harbin, Box 321, Laurel.
Flathead Valley Lodge No. 200—	Bert Hamlin, Whitefish.
Yellowstone Lodge No. 215—	Alfred Maybee, 102 S. H St., Livingston.
Signal Butte Lodge No. 224—	Chas. Olson, 605 N. Custer St., Miles City.
Missoula Lodge No. 241—	C. Forsyth, 1505 DeFoe St., Missoula.
Anchor Lodge No. 254—	Robt. Guest, Box 707, Deer Lodge.
Harlowton Lodge No. 308—	Harry S. Feldt, Harlowton.
Bad Lands Lodge No. 343—	S. Stocky, 602 Town St., Glendive.
Helena Lodge No. 428—	Samuel Everett, 1424 Lyndale Ave., Helena.
Copper City Lodge No. 430—	A. J. Rossland, 3223 Burlington St., Butte.
Cut Bank Lodge No. 726—	Howard Warner, Box 1319, Cut Bank.
Lewistown Lodge No. 475—	C. I. Burt, 1010 Sixth Ave S., Lewistown.
Big Falls Lodge No. 582—	Theo. Nessen, 1110 3rd Av., Great Falls.
Great Falls Lodge No. 955—	Doris Kuhn, 701-8th Av. S., Great Falls.
Glacier Park Lodge No. 590—	Henry Swortum, 608-1st St., Havre.
Wolf Point Lodge No. 801—	Arthur Rolfe, Wolf Point.

UNITED MINE WORKERS OF AMERICA.
DISTRICT NO 27.

Henry Drennan, President, Billings.
 John Smith, Vice-President, Billings.
 Robert Horne, Board member, 1st Sub-District, Lehigh.
 R. D. Jones, Board member, 2nd Sub-District, Klein.
 Thos. McBride, Board member, 3rd Sub-District, Bear Creek.
 Adam Wilkinson, Interational Board Member, Roundup.
 Secretary-Treasurer, Robert Condon, Billings.

LOCAL UNIONS, UNITED MINE WORKERS OF AMERICA, DISTRICT NO. 27.

No.	Location.
Local No. 2301—	Stockett, Mont.
Local No. 370—	Belt, Mont.
Local No. 703—	Lehigh, Mont.
Local No. 478—	Roundup, Mont.
Local No. 3574—	Klein, Mont.
Local No. 1585—	Carpenter Creek, Mont.
Local No. 1771—	Red Lodge, Mont.
Local No. 858—	Bearcreek, Mont.
Local No. 1729—	Bearcreek, Mont.
Local No. 1340—	Bridger, Mont.
Local No. 2020—	Sand Coulee, Mont.
Local No. 3907—	Sand Coulee, Mont.
Local No. 2866—	Roundup, Mont.
Local No. 3999—	Roundup, Mont.
Local No. 2860—	Musselshell, Mont.
Local No. 2740—	Fairview, Mont.
Local No. 2659—	Washoe, Mont.
Local No. 1727—	Bearcreek, Mont.
Local No. 1733—	Bearcreek, Montana.
Local No. 2875—	Fromberg, Mont.

NATIONAL FEDERATION OF FEDERAL EMPLOYEES.

No. of Organization.	Name and Address of Secretary.
Local No. 58—	Mrs. J. S. Roberts, Ft. Belknap Agency, Harlem, Mont.
Local No. 61—	W. T. Sommerville, U. S. Land Office, Great Falls, Mont.
Local No. 12—	Edward Jessop, Box 868, Helena, Mont.
Local No. 60—	S. E. Schoonover, Box 1547, Missoula.

LOCAL UNIONS.

No. and Name of Organization.	Name and Address of Secretary.
Union No. 14061—	(Cement Makers)—Charles B. Gray, Trident, Mont.
Union No. 16071—	(Cement & Plaster Makers)—Irvin Blocher, Hanover, Mont.
Union No. 12709—	(Federal Labor)—F. A. Tillman, 116 N. 34th St., Billings.
Union No. 12794—	(Federal Labor)—Leo Ogle, Box 631, Roundup.
Union No. 12924—	(Federal Labor)—H. B. Cain, 545 S. 1st St. W., Missoula.
Union No. 13385—	(Federal Labor)—Wm. O'Brien, 1311 Schley Ave., Butte.
Union No. 13136—	(Federal Labor)—Wm. M. Johnson, 106 Hickory St., Anaconda.
Union No. 14871—	(Federal Labor)—James H. Fisher, 1215-6th Ave. S., Gt. Falls.
Union No. 15582—	(Federal Labor)—Theodore A. Graf, Gen. Del., Livingston.
Union No. 15983—	(Federal Labor)—H. C. Burns, Whitehall.
Union No. 14160—	(Flour & Cereal Mill Emp.)—Al Grantham, Box 331, Harlowton, Mont.
Union No. 1336—	(Flour & Cereal Mill Emp.)—John A. Gradle, 511 N. Elm St., Lewistown, Mont.
Union No. 14829—	(Flour & Cereal Mill Emp.)—George R. Raurels, Electric Hall, Bozeman.
Union No. 15285—	(Flour & Cereal Mill Emp.)—Wm. DeMara, Box 751, Great Falls.
Union No. 15945—	(Flour & Cereal Workers)—B. F. King, care C. A. English, Lennox Hotel, Missoula.
Union No. 15460—	(Laborers' Protective)—Fred W. Apple, Box 1261, Havre.
Union No. 15020—	(Lead Burners, Anaconda)—Edward Geary, Box 407, Burgettstown, Pa.
Union No. 14729—	(Newsboys' Protective)—Basil Phelan, 503-9th Av. S., Great Falls.

LADIES' AUXILIARY TO THE ORDER OF RAILWAY CONDUCTORS.

No. and Name of Organization.	Name and Address of Secretary.
Rocky Mountain Division No. 207—	Mrs. W. E. Yaeger, 527 Alder, Missoula.
Golden Gate Division No. 226—	Mrs. K. Drake, 310 E. Park, Livingston.
Sacajaweah Division No. 313—	Mrs. M. Adams, 619-9th Ave., Great Falls.
Montana Division No. 332—	Mrs. Nellie Bailey, Box 132, Whitefish.

INDEPENDENT RAILWAY ORGANIZATIONS.

ORDER OF RAILWAY CONDUCTORS OF AMERICA.

No. and Name of Organization.	Name and Address of Secretary.
Yellowstone Division No. 191—	W. J. Milligan, 903 Kendrick, Glendive.
Missoula Division No. 243—	W. M. Rawn, Box 764, Missoula.
Montana Division No. 272—	J. A. Mayer, Havre, Mont.
Black Eagle Division No. 356—	O. B. Jornstead, 1220-1st Av. N., Gt. Falls.
Livingston Division No. 371—	Frank Shelver, 318 S. 6th St., Livingston.
Kalispell Division No. 414—	F. S. McCleuch, Box 127, Whitefish.
Miles City Division No. 528—	J. J. Aldrich, 214 N. Mont., Miles City.
Three Forks Division No. 529—	P. Pogreba, Three Forks.
Bitter Root Division No. 562—	H. V. Lewis, Alberton, Mont.
Billings Division No. 589—	W. Gallagher, 214 Securities Bldg., Billings.
Judith Basin No. 632—	E. V. Cramer, Lewistown.

BROTHERHOOD OF LOCOMOTIVE FIREMEN AND ENGINEMEN.

No. and Name of Organization.	Name and Address of Secretary.
Cherry Creek Lodge No. 93—	Joe Iowa, 1202-4th St., Havre.
Landmark Lodge No. 128—	C. Blomberg, Box 584, Forsyth.
Custer Lodge Lodge No. 191—	O. M. Earl, 215 S. S. St., Livingston.
Bonanza Lodge No. 194—	O. F. Clarke, 122 E. Cedar St., Missoula.
J. K. Gilbreath Lodge No. 264—	G. W. Bowen, S. Butte Station, Butte.
Mount Helena Lodge No. 423—	J. Copeland, R. F. D. No. 9, Helena.
Sun River Lodge No. 456—	H. M. Jones, Box 744, Great Falls.
Stillwater Lodge No. 482—	J. M. Maher, Box 513, Whitefish.
Beaver Canyon Lodge No. 495—	Geo. Sherwood, Box 203, Lima.
Copper City Lodge No. 500—	R. Ware, Box 405, Anaconda.
Milk River Valley Lodge No. 629—	J. A. Peters, Box 422, Wolf Point.
Signal Butte Lodge No. 759—	J. D. Parkinson, 322 N. 9th St., Miles City.
Gallatin Lodge No. 770—	R. E. Hungerford, Box 717, Three Forks.
Snowy Mountain Lodge No. 858—	C. C. Langhry, Leland Hotel, Lewistown.

BROTHERHOOD OF RAILROAD TRAINMEN.

No. and Name of Organization.	Name and Address of Secretary.
Bitter Root Lodge No. 834—	S. B. Eisenminger, Alberton.
Anaconda Lodge No. 614—	R. N. Welsh, 406 W. Park St., Anaconda.
Silver Tip Lodge No. 717—	Geo. Mehl, 24 Custer Ave., Billings.
Butte Lodge No. 580—	C. D. Lantermann, 1126 Iowa St., Butte.
Eagle Butte Lodge No. 328—	E. W. Buyers, Forsyth.
Sun River Lodge No. 405—	P. E. Lamiere, 522-4th St. S., Great Falls.
Havre Lodge No. 213—	W. Lacy, Havre.
Lewistown Lodge No. 886—	E. C. Short, Box 1726, Lewistown.
National Park Lodge No. 295—	L. A. Robinson, Livingston.
Ft. Keogh Lodge No. 811—	H. A. Bishop, Box 878, Miles City.
Missoula Lodge No. 670—	W. L. Jefferson, 823 Wolf Ave., Missoula.
Jawbone Lodge No. 814—	J. R. O'Dell, Box 329, Three Forks.
Mountain City Lodge No. 597—	G. W. Coffman, Whitefish.

INTERNATIONAL BROTHERHOOD OF LOCOMOTIVE ENGINEERS.

No. and Name of Organization.	Name and Address of Secretary.
Silver Bow Division No. 274—	A. J. Eamon, Box 815, Anaconda.
Deer Lodge Division No. 669—	James R. Rule, Box 321, Deer Lodge.
Yellowstone Division No. 195—	Thos. Williamson, Forsyth.
C. A. Broadwater Division No. 504—	J. S. Campbell, 519-2nd Ave. S.W., Great Falls.
Beaverhead Division No. 870—	J. A. Peterson, Lima.
Milk River Division No. 392—	Alfred Larson, 826-2nd St., Havre.
National Park Division No. 232—	C. H. Goddard, 508 N. B St., Livingston.
Ausselshell Division No. 761—	F. Waldmann, 1014 Knight St., Miles City.
Missoula Division No. 262—	J. C. Anderson, 825 A St., Missoula.
Painted Rock Division No. 744—	S. A. Jorgenson, Box 493, Three Forks.
J. R. Van Cleve Division No. 499—	Chas. Smith, Box 191, Whitefish.

LADIES SOCIETY OF THE BROTHERHOOD OF LOCOMOTIVE,
FIREMEN AND ENGINEMEN.

No. and Name of Organization.

Name and Address of Secretary.

Montana's First Lodge No. 105—Lulu E. Wilkinson, 1015 Poplar St., Missoula.
Glacier Lodge No. 50—Hazel Stanton, Whitefish.
Sunburst Lodge No. 164—Luella Dumont, 409-8th Av. S., Great Falls.
Snowy Range Lodge No. 168—Emma Kayser, 202 S. B. St., Livingston.
Rosebud Lodge No. 340—Grace H. Woodward, Box 563, Forsyth.
Madison Lodge No. 367—Alberta Spain, Three Forks.
Rock Rose Lodge No. 402—Vuro Thomas, 617 N. Lake Ave., Miles City.

County	County Seat	Class	Sheriff	Treasurer	Clerk and Recorder	Assessor
Beaverhead	Dillon	5th	C. K. Wyman (R)	Miss G. Mathews (D)	Miss Vera M. Baker (R)	B. W. Emerick (D)
Big Horn	Hardin	6th	John MacLeod (R)	Fred B. Gladden (R)	R. P. Ross (D)	A. H. Roush (D)
Blaine	Chinook	6th	J. Q. Laswell (D)	F. M. Rofe (R)	Vernon Butler (R)	Andrew Christensen (D)
Broadwater	Townsend	7th	John J. McDonald (R)	Mrs. C. A. Wilder (R)	Alice Crittenden (D)	M. L. Cavanaugh (D)
Carbon	Red Lodge	5th	George Headington (D)	Robert B. Drummond (R)	H. P. Sandels (R)	John T. Hays (R)
Carter	Okalaka	7th	Geo. Boggs (R)	Thomas Comolly (R)	C. C. Jamieson (R)	Geo. Cleveland (D)
Cascade	Gt. Falls	2nd	J. P. Burns (D)	Fred C. Andetta (R)	John E. Moran (R)	John L. Gilhin, Jr. (D)
Chouteau	Ft. Benton	5th	Merritt Flanagan	E. A. Boynton	H. C. Donaldson	Ross Elwell
Custer	Miles City	3rd	A. B. Middleton (D)	E. L. Haines (R)	J. H. Bolling, Jr. (R)	J. A. Heirs (D)
Dawson	Glenville	5th	A. H. Holland (D)	J. C. Sorenson (R)	Walter F. Nye (R)	Chas. E. Bean (R)
Deer Lodge	Anaconda	5th	L. L. Harisell (R)	J. J. Finnegan (D)	E. E. Bailey (D)	H. S. Neal (R)
Fallon	Baker	7th	F. F. Keeling	R. B. Lowry	L. E. Rushton	C. E. Hughes
Fergus	Lewistown	3rd	J. H. Stephens (R)	M. J. Gosh (D)	W. W. Wheaton (D)	A. T. Miller (R)
Flathead	Kalispell	4th	W. R. Martin (D)	J. W. Walker (R)	S. C. Bibee (R)	John Kennedy (D)
Gallatin	Bozeman	3rd	Chas. C. Esgar (D)	J. H. Harris (R)	D. S. McLeod (D)	S. N. Cowan (D)
Granite	Phillipsburg	7th	Fred C. Burke (R)	A. J. Murray (R)	E. P. Ballard (D)	W. E. Albright (D)
Hill	Havre	7th	Matthew McLain (R)	Simmon J. Tracht (R)	John H. Devine (D)	Ole Sanvik (R)
Jefferson	Boulder	6th	T. L. Locker (R)	R. Strobel (R)	H. R. Houghton (R)	James H. Mitchell (D)
Lewis & Clark	Helena	2nd	Geo. W. Huffaker (R)	W. A. Moore (R)	A. J. Duncan (D)	C. H. Martien (D)
Lincoln	Libby	6th	F. R. Baney	J. C. Friend	L. G. Klenc	J. D. Weil
Madison	Virginia City	6th	C. W. Hungerford (R)	H. C. Vinson (D)	Geo. E. Gohn (R)	Wm. J. Foreman (D)
Meagher	W. S. Sps.	5th	Geo. B. Nagues (R)	Geo. W. Harden (R)	Geo. Fowle (D)	C. L. McKethen (D)
Mineral	Superior	7th	Wm. La Comb (D)	J. C. Leib (D)	John McMillon (R)	Theo. H. Thomas (D)
Missoula	Missoula	3rd	J. T. Green (D)	J. W. Buford (D)	W. J. Babington (D)	D. B. Gurtle (D)
Musselshell	Roundup	5th	C. C. Hopkins (R)	Wm. J. Swan (R)	Volney J. Hain (R)	Pat. A. Hopkins (D)
Park	Livingston	5th	James McClarty (R)	Mrs. E. Klingensmith (D)	H. J. Reese (R)	John Fraser (R)
Phillips	Malta	6th	Thos. S. Johnson (D)	Ray L. Campbell (R)	W. G. Schneider (D)	H. S. Munson (R)
Powell	Deer Lodge	6th	Thomas Mullen (D)	Walter Holt (R)	D. B. Hertz, Jr. (D)	W. T. Beaumont (R)
Prairie	Terry	6th	E. H. Brooke (R)	I. E. Thomas (R)	A. E. Robbins (R)	Robert Martin (R)
Ravalli	Hamilton	6th	C. E. Hogue (R)	Grace Johnson (R)	F. E. Winkler (R)	R. R. Keyes (R)
Richland	Sidney	7th	E. D. Sullivan (R)	D. D. Dotson (D)	Luke Thiker	Christopher Tubbs (R)
Rosebud	Forsyth	4th	H. N. Grierson (R)	C. B. Hopkins (R)	A. M. Johnson (D)	O. B. Jackson (R)
Sanders	Thompson	6th	J. L. Hartman (R)	H. E. Smith (D)	A. L. Majors (R)	J. W. Florin (R)
Sheridan	Plentywood	5th	Jack Bennett (R)	R. M. Movius (R)	S. L. Anderson (D)	P. J. Kelly (D)
Silver Bow	Butte	1st	J. K. O'Rourke (D)	C. T. Pukett (D)	R. A. Latham (R)	A. C. Anderson (D)
Stillwater	Columbus	6th	E. B. Fellows (R)	E. B. Dixon (D)	A. A. Sheridan (R)	O. A. Fallang (R)
Sweet Grass	Big Timber	7th	G. B. Long (R)	E. E. Steensland (D)	M. A. O'Neill (D)	Otto Wagnild (D)
Teton	Choteau	4th	I. S. Martine (R)	G. B. Guthrie (R)	H. E. Moody (D)	W. T. Evans (R)
Toole	Shelby	7th	J. S. Alsop (R)	A. M. Cox (D)	C. W. Karpfer (D)	H. O. Gamas (D)
Valley	Glasgow	6th	C. W. Powell (R)	C. F. Turner (D)	W. W. Phares (D)	R. W. Holland (R)
Wheatland	Harlowton	5th	L. W. Clark (R)	C. B. Riedeman (D)	C. W. Wampler (D)	E. H. Yule (R)
Wibaux	Wibaux	7th	A. Barclay (R)	C. L. Deringer (R)	L. C. Faltermeyer (D)	A. H. Yule (R)
Yellowstone	Billings	3rd	S. W. Matlock (D)	J. W. Selmaeo (R)	F. E. Williams (R)	E. W. Dunne (D)

COUNTY OFFICIALS—(Continued)

County	County Seat	Class	Clerk of Dist. Court.	Attorney	Supt. of Schools	Coroner
Beaverhead	Dillon	5th	Fred Rife (D)	W. G. Gilbert (R)	Elizabeth Sutherland (R)	F. M. Cunnard (R)
Big Horn	Hardin	6th	F. A. Nolan (D)	F. D. Tanner (R)	Lucy Batty (R)	J. W. Bullis (R)
Blaine	Chinook	6th	A. W. Ziebarth (D)	D. L. Blackstone (R)	Elizabeth Crookshanks (R)	Herman Kuper (R)
Carbon	Townsend	7th	Fred Buser (D)	F. W. Schmitz (R)	Opal M. Cronk (R)	J. S. Connors (D)
Cardon	Red Lodge	5th	G. L. Finley (D)	H. A. Simmons (R)	Asgerd Haaland (R)	Roscoe Martin (R)
Cascade	Ekakala	7th	L. J. O'Grady (D)	Rudolph Nelstead (R)	Mrs. De Loss Hall (R)	C. K. Putnam (R)
Custer	Ft. Falls	2nd	George Harper (D)	H. G. Bennett (R)	Jane Keeney (R)	LeRoy McBurney (R)
Chouteau	Ft. Benton	5th	G. D. Patterson	H. F. Miller	E. D. Milliken	W. I. Wilford
Dawson	Miles City	3rd	C. A. Lindeberg (R)	Frank Hunter (D)	Olive Lovett (R)	H. C. Plimpton (R)
Deer Lodge	Glenaville	5th	F. A. Parrett (R)	Albert Anderson (R)	Camilla F. Osborne (R)	E. D. Giltner (D)
Fallon	Anda	5th	James White (D)	D. H. Morgan (D)	May Russell (D)	M. P. Mahoney (D)
Fergus	Baker	7th	Vine Donovan	P. C. Cronish	M. F. Lamb	G. R. Creel (R)
Flathead	Lewistown	3rd	J. L. Martin (D)	Stewart McConochie (D)	Amanda O. Swift (R)	J. E. Waggoner (R)
Gallatin	Kalispell	4th	R. N. Eaton (R)	T. H. MacDonald (R)	Mary E. Eckstein (R)	F. M. Gray (D)
Grainger	Bozeman	3rd	W. L. Hays (D)	C. E. Cralon (D)	D. E. Forrest (R)	J. J. Carmichael (R)
Hill	Phillipsburg	7th	Wm. B. Calhoun (R)	D. M. Durfee (D)	L. T. Irvine (R)	J. M. Kay (R)
Jefferson	Hayre	7th	Geo. W. Glass (R)	C. R. Stranahan (R)	Elizabeth Ireland (R)	Andrew Less (D)
Jewett	Boulder	6th	W. B. Hundley (D)	J. E. Kelly (D)	Lilah Halford (D)	B. V. McCabe (R)
Lincoln	Helena	2nd	F. L. Reece (R)	L. H. Loble (D)	May J. Crichton (R)	H. M. Gompf
Madison	Libby	6th	Tim Miller	W. H. Gray	C. M. Spence	Louis Roney (R)
Meagher	Virginia City	6th	Matt Carey (D)	L. H. Bennett (R)	Mary F. Bull (R)	Cora C. Beach (R)
Mineral	W. S. Spgs.	5th	Geo. H. Bell (R)	E. F. Angell (D)	Mary F. Davies (R)	Fred Fulcher (D)
Missoula	Superior	7th	Blanche M. Hyde (R)	L. E. Merrick (D)	Marie Penglase (R)	C. H. Marsh (R)
Musselshell	Missoula	3rd	H. M. Rawn (R)	D. N. Mason (D)	Mabel M. Lindstadt (D)	M. A. Acton (R)
Park	Roundup	5th	Wm. G. Jarrett (R)	V. D. Dusenbery (D)	Minnie F. Ferguson (D)	J. W. Whitfield (R)
Phillips	Livingston	5th	W. H. Pettybridge (R)	E. C. Jones (D)	Elsie Mercier (D)	R. W. Tucker (R)
Powell	Malta	6th	C. M. Porter (R)	F. C. Gabriel (R)	Flora Sims (R)	R. W. Ross (R)
Prairie	Deer Lodge	6th	Robt. Midtling (D)	W. E. Keeley (R)	Irene Coughlin (R)	L. W. Sherman (R)
Ravalli	Terry	6th	W. A. Cameron (R)	J. C. Tope (R)	Annie E. Lowall (R)	J. H. Gardner (R)
Richland	Hamilton	6th	J. T. Coughenour (R)	Leonard Goodwin (R)	Bethel Irwin (R)	Wm. M. Combes (R)
Rosebud	Sidney	7th	G. L. Rood (R)	Chas. E. Collett (D)	Emogene Lectra (R)	F. M. Booth (R)
Sanders	Forsyth	4th	D. J. Muri (R)	B. D. Tull (D)	Sallie M. Adams (R)	E. T. McCaffery (D)
Sheridan	Thompson	5th	Wm. Storm (D)	A. A. Alvord (D)	Ethel G. Toulmin (D)	M. M. Johnson (D)
Silver Bow	Plentywood	5th	O. R. Girard (R)	J. J. Gunther (R)	Ellen Wilson (R)	Dan Holland (D)
Stillwater	Butte	1st	Otis Lee (D)	M. L. Jackson (D)	Nellie Smart (D)	Gustave Simmonds (D)
Sweet Grass	Columbus	6th	G. B. Iverson (R)	M. L. Parcels (R)	Gertrude E. Sylvester (D)	J. A. Lowry (R)
Teton	Cheyenne	7th	H. C. Pound (R)	F. M. Lamp (R)	Inga Solberg (R)	C. H. Connor (R)
Toole	Choteau	7th	Paul Jacobson (R)	G. W. Magee (R)	Ruth Sweat (D)	M. D. Riddle (D)
Valley	Shelby	7th	P. J. Day (D)	J. G. Henderson (D)	Josephine Moberly (R)	C. E. Peterson (R)
Wheatland	Glacier	6th	O. T. Cutting (D)	R. D. Borton (D)	Nellie Johannott (R)	E. F. Ross (R)
Wibaux	Hartington	5th	A. T. Anderson (R)	C. N. Jones (R)	Bertha L. Luncford (R)	Maude B. Wills (R)
Yellowstone	Wibaux	3rd	A. E. Jeffers (Soc.)	E. F. Fisher (R)	Frances Miller (D)	F. M. Smith (R)
	Billings	3rd	Fred Inabnit (R)	E. E. Collins (R)		

COUNTY OFFICIALS—(Continued)

County	County Seat	Class	Surveyor	Auditor	Commissioners—2 Yrs.	Commissioner—4 Yrs.
Beaverhead	Dillon	5th	W. E. Chapman (D)	W. F. Cashmore (R)	D. D. McKnight (D)	J. E. Shaw (D)
Big Horn	Hardin	6th	J. E. Graham (D)		A. H. Bowman (D)	B. F. Hertzler (R)
Blaine	Chinook	6th	L. R. Hauke (R)		J. W. Acher (D)	James Claridge (D)
Broadwater	Townsend	7th	C. K. Pool (D)		Emil Kleckbush (R)	G. W. Myers (R)
Carbon	Red Lodge	5th	A. B. Cooley (R)	H. H. Forman (R)	M. McDonough (D)	J. M. Burnett (D)
Carter	Bkalaka	7th	Geo. Scheetz (D)		John Johnston (R)	Frank Snow (D)
Cascade	Gt. Falls	2nd	R. G. Day (R)	F. C. Roosevelt (R)	W. F. Kester (D)	J. R. Bennett (D)
Chouteau	Ft. Benton	5th	A. W. Merrifield	W. P. Thurston	A. E. McLeish	M. J. McDonald
Custer	Miles City	3rd	H. E. Fearnall (R)	R. H. Michaels (R)	J. R. McKay (R)	P. S. Richardson (R)
Dawson	Glendive	5th	B. W. Adams (R)	L. J. Guy (D)	H. V. Robinson (R)	Arthur Markley (R)
Deer Lodge	Anaconda	5th	E. A. Cralle (D)	Clara Harity (R)	W. L. Collins (R)	T. P. McGrath (D)
Fallon	Baker	7th	R. E. Lyman (R)	Mrs. L. C. Wilson (D)	James Pepper	R. E. Sutton
Fergus	Lewistown	3rd	H. C. Tilzey (R)		E. D. Barney (D)	B. F. Moulton (R)
Flathhead	Kalispell	4th	F. P. Scott (R)	E. J. Green (R)	A. W. Swaney (R)	C. H. Brintall (R)
Gallatin	Bozeman	3rd	F. M. Brown (R)	W. H. Buttelman (D)	B. S. Duncan (D)	B. S. Duncan (D)
Graffite	Philipsburg	7th	E. B. Patten (D)		S. M. C. Hughes (R)	John Kaiser (D)
Hill	Havre	7th	J. C. Peterson (R)	G. J. Bonline (D)	Abe Crosson (R)	W. F. Watters (D)
Jefferson	Boulder	6th	C. D. Flaherty (D)	C. M. Settles (R)	John Larson (R)	E. R. McCall (R)
Lewis & Clark	Helena	2nd	P. S. Poore (D)		C. T. Young	G. W. Lanstrum (R)
Lincoln	Libby	6th	S. S. Craig		Peter Grant (D)	W. A. Raymond
Madison	Virginia City	6th	C. C. Adams (R)		C. G. Gaddis (D)	F. S. Metzler (R)
Meagher	W. S. Spgs.	5th	E. R. Lausted (R)		Ole Johnson (R)	S. M. Holliday (D)
Mineral	Superior	7th	Lee Eller (R)		H. F. Peterson (R)	O. J. Allen (D)
Missoula	Missoula	3rd	F. T. Stoddard (R)	Ethel Evenson (R)	C. S. Hefferlin (R)	C. R. Prescott (D)
Musselshell	Roundup	5th	Ray E. Bushnell (R)	Geo. A. Smith (D)	Harry Barr (R)	B. C. Steele (R)
Park	Livingston	6th	C. T. Sackett (R)	Fred Mjelde (D)	C. S. Hefferlin (R)	H. B. Fetter (D)
Phillips	Malta	5th	R. E. Richardson (R)		C. A. Ross (R)	W. D. Miller (R)
Powell	Deer Lodge	6th	Lee Williams (R)		J. E. Manley (R)	Arthur Thomas (R)
Prairie	Terry	6th	Walter Mackin (D)		R. M. Hamlin (R)	H. J. Kramer (D)
Ravalli	Hamilton	6th	Leonard Oertli (D)		R. L. Hamper (R)	C. B. Taylor (D)
Rosebud	Sidney	6th	R. N. Stewart (R)	G. G. Davis (R)	J. H. Bayden (R)	H. A. Miller (R)
Sanders	Orsiny	7th	C. B. Taber (R)		R. W. Blakesley (R)	G. S. Warren (R)
Sheridan	Thompson	6th	Theodore Johnston (R)	J. F. Redmond (D)	Chas. Prongue (R)	C. L. Matkin (D)
Silver Bow	Pleantywood	5th	C. E. Corvill (R)	Nellie Sullivan (D)	J. C. Timmons (D)	J. D. Matkin (D)
Stillwater	Tuttle	1st	Michael Loughran (D)		S. E. Simonson (D)	J. M. Fabian (D)
Sweet Grass	Columbus	6th	D. N. Wardo (D)		O. G. Hood (R)	J. R. Davis (D)
Teton	Big Timber	7th	G. J. Walvoord (R)	W. H. Webb (R)	John Esp (R)	W. A. Carl (D)
Toole	Choteau	4th	Freeman Daley (R)		E. A. Savory (D)	Dan Ledgerwood (D)
Troley	Shelby	7th	H. W. Rawson (R)	H. G. Wolking (R)	L. C. Marsh (R)	L. H. Knutson (R)
Valley	Glasgow	4th	W. H. Mann (R)	F. H. Anderson (R)	P. J. Holmes (R)	C. J. Anderson (R)
Wheatland	Harlowtown	6th	C. C. Jewell (R)		C. F. O.	G. C. Perkins (D)
Wibaux	Willis	7th	A. L. Hurlbut (R)		W. E. Piper (R)	R. M. Grandy (R)
Yellowstone	Billings	3rd	C. E. Durland (R)	Alice G. Sleeper		D. J. Phelan (D)

COUNTY OFFICIALS—(Continued)

County	County Seat	Class	Commissioner—6Yrs.	Public Administrator
Beaverhead	Dillon	5th	O. M. Best (R)	G. T. Banks
Big Horn	Hardin	6th	J. F. Young (R)	C. W. Doane (R)
Blaine	Chinook	6th	F. B. Polley (R)	E. S. Pool (R)
Broadwater	Chinook	6th	G. G. Webb (D)	
Carbon	Townsend	7th	M. J. Roydon (R)	M. L. Chamberlain (R)
Carder	Red Lodge	5th	John Buck (R)	L. M. Elliott (D)
Cascade	Ekalaka	7th	B. C. Johnston (R)	Chas. Wagner (D)
Chouteau	Gt. Falls	2nd	H. L. Armstrong	W. O. Dexter
Custer	Ft. Benton	5th	J. H. Hasty (R)	W. B. Clarke (R)
Dawson	Miles City	3rd	Arnold Griffin (R)	K. E. Herrick (R)
Deer Lodge	Glendive	5th	L. E. Cosens (R)	R. D. Crosswhite (D)
Fallon	Anaconda	5th	T. F. Schofield	
Fergus	Baker	7th	G. F. Wright (R)	E. J. Baker (R)
Flathead	Lewistown	3rd	A. L. Ingraham (D)	E. F. Morgan (R)
Gallatin	Kalispell	4th	J. E. Moore (D)	W. B. Burkett (R)
Granite	Bozeman	3rd	A. S. Huffman (D)	H. T. Cumming (R)
Hill	Philipsburg	7th	F. M. Wilson (R)	Alex. Olsson (R)
Jefferson	Havre	6th	J. M. Connon (R)	J. S. Flaherty
Lewis & Clark	Boulder	2nd	W. M. Biggs (D)	J. D. Conrad (R)
Lincoln	Helena	6th	H. W. Rouse	W. N. Curtis
Madison	Libby	6th	C. H. Buford	L. A. Dudley
Meagher	Virginia City	6th	D. L. Wheeler (D)	J. T. Harry (R)
Mineral	W. S. Spgs.	5th	Jas. Hiller (D)	Otto Reiffin (D)
Missoula	Superior	3rd	Fred Watson (R)	E. G. Smith (R)
Musselshell	Missoula	5th	C. A. Henninger (R)	J. A. Liggett (R)
Park	Roundup	5th	Chris Jensen (R)	J. F. Leighton (R)
Phillips	Livingston	6th	H. S. Whitcomb (R)	
Powell	Malta	6th	Albert Bien (R)	G. B. Jeffers (R)
Prairie	Deer Lodge	6th	Lon Fluss (R)	F. N. Weed (R)
Ravalli	Terry	6th	J. V. Burnett (R)	D. W. Binkerd (R)
Richland	Hamilton	6th	F. E. Hardy (D)	F. J. Matoushek (R)
Rosebud	Sidney	7th	W. T. Craig (R)	Arthur Bland (R)
Sanders	Forsyth	4th	F. S. Symes (D)	R. R. Ross (D)
Sheridan	Thompson	6th	J. H. Anderson (R)	E. E. Belanski (R)
Silver Bow	Plentywood	5th	B. E. Cooney (D)	Madge Dugan (D)
Stillwater	Butte	1st	W. L. Kyle (R)	Wm. Witt (D)
Sweet Grass	Columbus	6th	Lew Webb (R)	
Teton	Big Timber	7th	C. P. Crane (R)	Byron Corson (R)
Toole	Choteau	4th	E. B. Toole (D)	J. W. Williamson (R)
Valley	Shelby	4th	C. H. Pippin (D)	O. P. Roop (R)
Wheatland	Glasgow	6th	E. E. Crawford (R)	J. A. Ross (R)
Wibaux	Harlowton	5th	E. B. Stair (R)	
Yellowstone	Wilbax	7th	J. S. Todd (R)	S. H. Mendenhall (R)
	Billings	3rd		

INDEX

	Page
Accident prevention	50
Altitudes in Montana	175
Assessment of property by county, statistics of.....	144-145
Attorney General's Opinions	115-117
Bakery statistics	126-127
Banking statistics	150-151
Bottling work statistics	124
Bounty statistics	146-147
Brewery statistics	123
Brick and clay statistics	135
Cattle shipments	168
Cheese factory statistics	136
Child Labor Law	101-102
Cigar manufacturing statistics	128
Concentrator statistics	139
Condensed milk factories	94
Cost of Living	105-106
Cost of Living, statistics of	107-112
Creamery statistics	132-133
Cyanide plant statistics, etc.	139
Directory—congressional delegation	182
of county officials	209-212
of district judges	195
of labor organizations	196-208
of members of House	183-184
of members of Senate	182
of state officials and state boards	184-192
of United States officials	181
Distribution of employment	52
Divorce statistics	156
Election returns	176-177
Employment offices, statistics of free	162-166
Fire losses	158

I N D E X—(Continued)

	Page
Flax fiber industry	97- 98
Flour mill statistics	130-131
Food prices, statistics of	107-112
Foundries, repair and machine shops, statistics	129
Fraternal Society insurance, statistics of	160-161
Free employment offices, statistics of	162-166
Gems and semi-precious stones	77- 86
Glass manufacture	96
Gold Dredging	69- 73
Hospital contracts	54
Hours of Labor of woodsmen	48
Insane, statistics of state hospital for	140-142
Insurance statistics	159-161
I. W. W. activities	60
Jail incarceration statistics	152-153
Laundry statistics	125
Labor disturbances	17- 41
Labor organizations, directory of	196-208
Leaching and cyanide plant statistics	139
Legislation recommended	9- 13
Letter of Transmittal	5- 6
Livestock importations, statistics of	167
Lumber industry	45- 65
Marble, onyx and building stone deposits	95- 96
Marriage and divorce statistics	156
Meat packing and slaughtering, statistics	134
Miscellaneous statistics	138
Monumental work statistics	137
Nationality of Woodsmen	47
Opinions of Attorney General	115-117
Penitentiary statistics	148-149
Planing mill statistics	122
Potato products	90-92
Private employment offices, abuses	56
Pulp and paper industry	92- 93

I N D E X—(Continued)

	Page
Revenue from licenses, statistics of	154-155
Saw Mill statistics	120-121
Sheep and wool statistics	169-174
Shoe industry	89- 90
Smelters, concentrators, leaching & cyanide plant statistics.....	139
Strikes, walk-outs and labor disturbances	17- 41
Tuberculosis statistics of Silver Bow county	157
Undeveloped industries	89- 96
Wages of Woodsmen	63- 65
Wage statistics	143
Wood products, value of	60- 62
Wool statistics	169-174

